

What's new in Pro Audio

THE GUIDE TO THE LATEST PRODUCTS AND EQUIPMENT

ISSUE No5 Winter 1998/99

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D&R Cinema Film Panel



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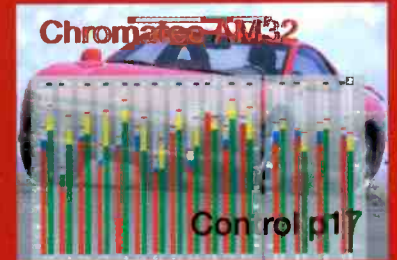


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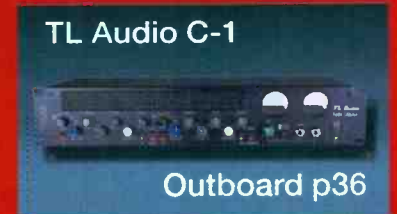
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Drawmer digital DC range



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Reader Response No. 001

acoustic™

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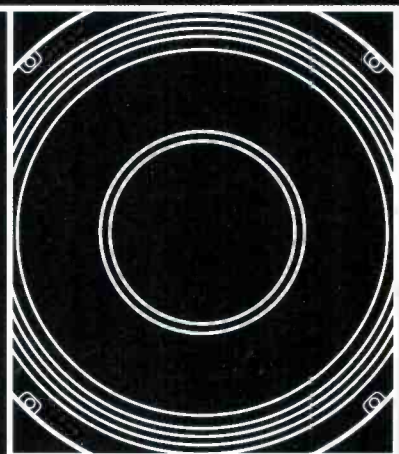
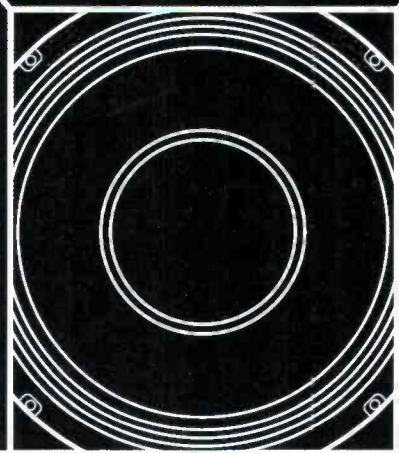
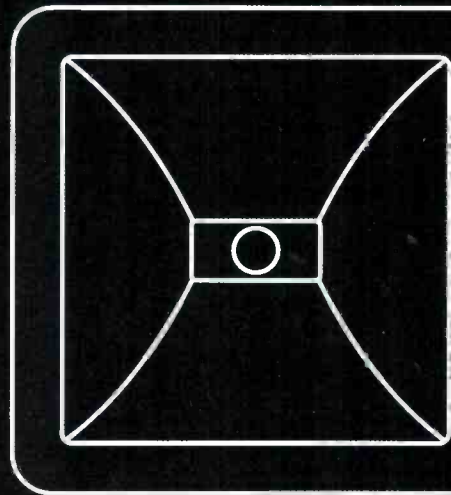
If you haven't heard the new acoustic™, you owe it to yourself to take a listen. Over the last few months we have introduced over thirty new models: Series 2000 & 3000, Low-Profile monitors, Contractor Series and Subwoofers, including the patented SubTeq™ 2.6. And that's just for starters. Standby for major new product introductions and a few surprises coming during the first half of 1999!

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Reader Response No. 002

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Pictured on top, the full-range V-152. In the middle, the 3-way V-253. And below, the SL-36 portable earthquake. Sound Bigger. Cerwin-Vega!



SOUND BIGGER

Reader Response No. 002

Get involved

Wasn't email great when it was just a simple way of sending and receiving electronic letters? Yet its evolution serves to remind what can happen when a technology is exploited beyond what it was originally intended for. Such exploitation is never a bad thing - unless you push a boundary you never find out if it is fixed but you still need boundaries to encapsulate an idea at its kernel, to outline what it is that you're starting off with because without it confusion and ignorance can reign.

I now waste a lot of email time attempting to crack open peculiar format text-based files and downloading pictures, frequently as enormous files that I can't then open, sent by people who don't really understand what is required or how best to package it.

Email still works best in its purest and most simple form because if things are kept plain then you can pretty much guarantee a result. The hang ups and pains occur when one closed group of users, who have adopted a specific internal means of working, interface with the rest of the world. The idea of the lowest common denominator has been overlooked, the ante has been raised and conflict is almost guaranteed.

I see a similar potential with multichannel sound. The lowest common denominator in this instance is the consumer who remains largely ignorant and confused by what is being offered. You may understand all the different permutations of multi-

channel sound and how they apply to the different formats on parade but the average consumer remains unable to make an informed judgement on the real benefits for his picture, his sound or even for his computer.

Multichannel sound is grand but it is only one aspect of a much wider current assault on the pocket and senses of the consumer. Multichannel sound is the sound of the future, we must become comfortable with it, experienced in it, and never miss an opportunity to explain its role within the context of all the other bells and whistles that it is being tagged on to anyone who asks.

If it is going to be a shot in the arm to the audio production industry then we have to learn about it and be proficient in it.

The scale of the education task here is positively enormous and, whether we like it or not, the responsibility for spreading the good audio word to everyone from picture-related practitioners to consumers lies ultimately with the audio industry.

Yet I am amazed at the number of professional audio folk who have still not heard multichannel music or high bit and high bandwidth audio. There is little time remaining and much catching up to be done but this is an instance in which audio cannot afford to be marginalised. Get involved and take control.

Zenon Schoepe,
executive editor

What's New in Pro Audio

Editorial

Executive Editor:

Zenon Schoepe

Production: Avant Garde Ltd

Contributors: Simon Croft,

Dave Foister, Zenon Schoepe

Publishing Editor:

Joe Hosken

Advertisement Sales

Group Sales Manager: Chris Baillie

Ad Manager: Phil Bourne

Ad Executive: Dominic Robinson

PA to the Publisher:

Lianne Davey

Managing Director:

Doug Shuard

Publisher: Steve Haysom

Miller Freeman UK Ltd,
8 Montague Close, London
Bridge, London SE1 9UR

Tel: +44 171 940 8500

Fax: +44 171 407 7102

Email: zschoepe@unmf.com

Web: www.prostudio.com

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EV amps

Q-Series amplifiers are apparently based on the established P-Series amplifiers but are intended to offer musicians and other users a road-worthy device. Fitted with two three-speed fans, the new Q-Series amplifiers are said to have dramatically improved overheating protection. Large aluminium heat-sinks are used on the output devices.

The Q44 produces 280W per channel into eight Ohms and the Q66 is rated at 380W. Both units use electronically balanced XLR I-O with the outputs on Speakon connectors. Toroidal transformers are used for increased headroom and the design also includes safety devices to prevent accidental overload, damage from shorted outputs, radio interference or DC faults.

EVI/Telex 403

Exicon

Available in a range of output powers from 100W to 3kW-plus, Exicon MOSFET evaluation amplifier modules are said to dramatically reduce development costs. Supplied with comprehensive application and engineering documentation, the units can be used as building blocks in the design of amplifiers for applications including sound reinforcement.

Also available are the That series of transistor arrays, suitable for creating the front end of integrated amplifiers.

Profusion 405

**Phonic range grows to nearfield**

Aimed among other things at nearfield monitoring applications, the AMAR1 Reference Amplifier is the fourth model in the MAR Series of power amplifiers from Phonic. It delivers 100W per channel into 8 Ohms, with comprehensive protection and enough heat sinking to avoid the need for a fan. Calibrated gain controls, front panel LED indicators, power-on muting, Neutrik Combo input connectors and a ground floating switch complete the picture of a neat pro amplifier designed carefully for its intended job.

Phonic 400

Carver launches lower cost amps

Providing lower cost amplification than other Carver designs, the PX series comprises three units.

All units in the series are fitted with facilities including DC protection, high pass filters, clip eliminator, thermal overload protection and continuously variable fan cooling.

Inputs are paralleled 1/4-inch

jacks and XLRs, which also permit easy daisy-chaining of multiple units. All three units have switchable .775/1.5V input sensitivity and will also operate down to 2 Ohms. Power ratings at 8 Ohms per channel are: PXm250 75W, PXm450 150W and PXm900 300W. The largest amplifier is 3U, the smaller two are 2U.

Carver 402

Peavey PV1200

Now available across Europe, the PV1200 power amplifier offers power ratings from 250W per channel at 8 Ohms to 1,200W at 4 Ohms in bridged mode.

A development from the established PV 8.5C, the new unit is said to benefit from a circuit upgrade which offers improved sound quality with lower distortion.

The unit includes Peavey's patented DDT speaker protection system, two-speed fan and Speakon outputs, as well as 1/4-inch jack inputs. S/N is claimed to be 100dB below rated power for the 3U device. Weight is 18kg.

Peavey 404

Matrix has STR

The STR series of amplifiers from Matrix Audio

Developments are aimed at the installed and live sound markets. Available in power ratings up to 3kW, the units are designed to operate reliably in environments where smoke machines are in operation. All the amplifiers are mounted in a 2U rack casing.

Matrix Audio 401

ANCILLARIES**Metro Audio offers DSP matrix**

The Metro Audio PMZ88 programmable DSP matrix mixing zoner is designed for simple configuration in bars, theatres, retail and leisure applications and anywhere else with a requirement for selecting multiple music sources and paging to multiple zones.

The system is also said to be

applicable to conferencing and multifunction venues needing to route multiple mics to multiple outputs. It provides 16 memory locations and offers 8 inputs to 8 outputs expandable to 16 x 16 with each pair selectable for stereo inputs and outputs.

Parametric and graphic EQ,

AGC, noise sensing, output limiting and output delays are accessed by a jog/dial and large LCD with password protection.

The device uses 32-bit processing, high quality A-D and D-A converters with software stored on Flash memory which can be updated via RS232. The external AC power has 24V Dc backup.

Metro Audio 587

Chameleon
Pure Power Professionals

1u amplifiers from 350 to 1000watts per channel



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Reliable & Responsive. We based QSCControl entirely on established computer industry standards such as Ethernet networking technology, TCP/IP communications protocol, and the Microsoft Windows NT operating system. The result is unmatched reliability and performance achieved through the use of proven technology.

In addition to reliability, Ethernet and TCP/IP provide over 100 times the bandwidth of other proprietary systems for accurate real-time monitoring and the most responsive control. You can also interface with your existing network or WAN with ATM, Gigabit Ethernet, and switched networks.

Flexible. Operate QSCControl with our standard software, or create custom control screens to integrate your entire sound system. Using standard Windows tools like ActiveX, COM, and plug-in components for Microsoft Visual Basic, QSCControl offers the most user-friendly and advanced development tools available today.

QSCControl's open architecture also allows the control of a multitude of other devices from other manufacturers using RS-232, RS-485, MIDI, Ethernet, contact closures, and other interfaces.

Make the right choice and rest assured you'll get top performance time and time again. For more info call: (800)854-4079 or visit www.qscaudio.com.

Three Elements of a QSCControl System

QSCControl Computer Controller is a Pentium-III based, rack-mounted computer running the Microsoft Windows NT operating system. It comes pre-configured with all drivers, development software and interface cards.

Control Application Software called System Manager is a standard application supplied with every system, or design an application tailored to your specific needs with easy-to-use Visual Basic.

CM16 MultiSignal Processors perform control and monitoring functions for up to eight dual-channel QSC data port equipped amplifiers. Located in the amplifier racks, CM16s communicate directly with the System Controller via a standard Ethernet network.

QSC System Support is here for you 24hrs/7 days a week. We'll help you setup your system, train your operators and even work with you or a company of your choice to design custom control software.

QSCTM
AUDIO

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Reader Response No. 006

Deltron

Part of the Deltron Audio Master range, the SwiftPatch system comprises a 19-inch rack-mounted panel with interlocking, sealed jack modules. Available in packs of six, they allow 24 channels in 1U. Each module has four back-to-back three-pile 1/4-inch sockets for stereo, balanced or mono signal patching. Each module can be set to half-normalled or straight-through operation by squeezing the release clips, removing and rotating the module. Colour coding of the mode is visible from the front panel.

Deltron**420****More power, less noise from Furman**

Furman's specialist range of power conditioning and distribution equipment has acquired two new additions to its series of balanced AC power isolation transformers. The existing 20-amp IT-1220 is joined by 10A and 30A versions, not surprisingly designated the IT-1210 and IT-1230 respectively. These specially wound and shielded rack-mounted toroidal transformers provide balanced AC power, bringing similar benefits to system noise as those provided by balanced line audio operation. Hum and buzz



from ground currents and from radiation into adjacent audio equipment are claimed to be drastically reduced.

The US-standard boxes carry multiple Edison outlets and deliv-

er 60V at opposite polarity on the two main conductors referenced to the common safety ground attached to the centre tap of the transformer.

Furman Sound**422****The Audio Toolbox™**

"The Audio Toolbox is a DSP-powered, wunderbox packing dozens of functions...
At \$899, every audio pro needs one."

- George Petersen, Mix Magazine

Inputs:

- Built-in microphone
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- MIDI

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**Outputs:**

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- Balanced XLR
- 1/4" TRS
- RCA phono
- 1/4" stereo headphone jack
- MIDI

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**Reader Response No. 007****Electrospeed's military precision**

Electrospeed's new TMN range offers low-cost waterproof connectors providing an all-metal equivalent to ITT Cannon's Trident Neptune range. The die-cast zinc-alloy bodies have the additional advantage of full shielding, providing military spec performance at much lower cost. When fitted with a shielding end bell they provide full EMC screening over 360° as well as a waterproof rating to IP67 when mated.

Existing standard Trident contacts are used, removing the need for new tooling, and they are fully pin-for-pin compatible with Trident Ringloc connectors.

Electrospeed**410****Sovtek valves**

The Sovtek 6B4G uses a single triode with a directly heated cathode instead of the usual dual triode arrangement, said to increase reliability and widen frequency response.

Modelled on the RCA 6L6GC blackplate tube, the new 6L6WX1+ has a larger plate and a grid structure modified for power handling. Sovtek's KT88 uses a tri-alloy plate structure to minimise warm up time and increase power output, while allowing for more accurate tube matching.

New 6550s are available in WD and WE versions, with a number of improvements which the company claims makes them the premier 6550s available.

Sovtek**408****Aphel filters**

The Metal series of filtered power distribution units protect against mains-borne transients, switching surges, RFI and lighting disturbances. Models include a 2U horizontal configuration with five or six BS1363 sockets with or without an illuminated switch. There are also vertical models with 10 BS1363 or IEC 320 sockets.

Safety Power Group**407****FREE ENQUIRY SERVICE**



Equi=Tech balances power

Responding to customer comments about weight, size and price, Equi=Tech has produced newly redesigned versions of its rackmount balanced power products.

This means the 15-Amp ET1.5R and the 20A ET2R are now 2U chassis in line with the 10A ET1R, and weigh 15 pounds less than

their predecessors.

Any thoughts that ruggedness might be compromised are countered by Equi=Tech's warranty, now extended to three years on parts and labour for all rack systems with a lifetime replacement warranty on the power transformer.

Equi=Tech 409



Sescom mic transformers

In response to an idea from Shure Applications Engineering, Sescom has released an in-line audio transformer for microphone signals. The IL-29 Ground Isolator is designed for use with phantom powered microphones and is intended to solve the problems of RFI and EMI noise.

Sescom 411



ATR's VSO for analogue

ATR Service Company has introduced the VS20 high resolution variable speed oscillator which is compatible with any analogue recorder using the 9.6kHz servo reference frequency. The device allows speed variations of 0.01% accuracy with repeatable results within 25ppm. Speed variation is shown on a large 5-digit LED display.

Other products from the company include transformerless I-O modules and HDV2 valve reproduce amps for Ampex ATR102 recorders, complete ATR100 restorations and the MM1200 11+2 wide track multitrack head-stack.

The company has also boosted the performance of the ATR102 by doubling track width through a 1-inch 2-track modification. This, it claims, lowers the noise floor by 6dB per channel and removes the need for the use of noise reduction at 15ips.

ATR 419

Upal graphic

BS has added a graphic equaliser to its Opal series. The PCB99 is based on constant Q technology which maintains filter width regardless of filter gain setting. Separate HF and LF contours filter are provided along with a variable 18dB octave high pass filter.

Output level is monitored by LED meter and a slip warning LED. De-are electronically accessed with transformers as option.

Audio Decision 498

Rapid response!



Drawmer digital

Drawmer has introduced digital products for 24/96 processing.

Roxburgh 406



Devlin graphic switches

New switches from Devlin aim to clarify panel layouts by incorporating LCD graphic panels in the buttons. Multicoloured LCD combinations are available in two sizes, with matrix layouts of 16x32 and 24x36 pixels. Each switch's graphics are controlled by a newly developed ASIC, and the controller and driver are built into the switch. Control is via a single serial pin and the panel can be used to display alphanumeric data, moving pictograms and simple graphics.

Devlin Electronics 418

Alps faders: small loss

Said to offer a minimum attenuation level of 110dB with an insertion loss within 0.1dB, the Alps RSA0N11S and RS60N11S slim-line faders are only 8mm high. They are supplied with a choice of levers and snap-in PCB mounting terminals and the 60mm or 100mm travel units are available in log or linear audio tapers.

Roxburgh 406

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Switchcraft

The F Series of receptacles provides three pin XLR-style format in a rugged metal shell with a ferrite disk for additional EMI/RMI shielding. The housing also offers through-the-shell ground connection for more effective shielding. Available in male and female versions, the connector can be ordered with straight or right angle PC termination.

Switchcraft 415

Tascam ADAT convertor

Tascam describes the IF-TAD at \$349 (US) as the first truly affordable convertor for translating data from DTRS and ADAT and back again. The interface features LEDs for TDIF activity, ADAT optical I-O, LEDs for ADAT activity and word sync out.

Tascam 412

BGW on the rack

BGW's range of rack accessories now includes a heavy duty 2U tray, the VRMT26-2. Made from 14 gauge rolled steel and finished in black, the tray is 26 inches deep with rear supports and ventilation.

BGW Systems 413

Computer monitor convertor

Barco's Uno processor reproduces digital video signals on a standard computer display (32kHz) or on an analogue RGB monitor (15kHz). In contrast to simple SDI-VGA convertors the device maintains broadcast picture resolution, provides full



colour matching capabilities and adds broadcast functionality to a standard computer display.

Barco 416

Stramp boxes get into sync

Peter Struven has launched a number of sync boxes including the Stramp SR-X (a count down box for film and video post) and the Stramp CP-3 (a SSL parallel to Sony serial convertor with track select for SSL 4k, 5k and 6k series).

The Stramp DA801 is a Sony 9-pin RS422 serial to Tascam 15-pin serial protocol convertor which is suitable to use with the Stramp



ADR Superset, the Stramp CP-3 and the Stramp AVM, MC50X. Users can connect up to six Hi8 machines to the Stramp DA801.

Peter Struven 417

Philex phones

Three new headphones from Philex include models with onboard equalisation and a cordless system.

The SLW-250 has a built in bass amplifier with separate level control for low frequencies. The

SLW-240 also has a bass control and was apparently designed in consultation with a number of DJs. Model SLR-863 is an RF headphone system designed to operate over distances of up to 100m. It uses two rechargeable AAA batteries.

Philex 414

More plugs for Neutrik

Having brought new connectors to the industry Neutrik continues to improve and refine them. The useful Combo connector, the coaxial combination of an XLR and a TRS jack, is now available in a new model, with lower price, improved appearance, a new V-shaped contact design and hard gold plating. It is available in vertical and horizontal PCB versions as well as hardwired, and comes with or without a latch.

The Speakon has achieved remarkable success since its introduction, and Neutrik is adding a simplified 2-pole version for the many applications that do not require the full four contacts. Neutrik hopes this will help it to supersede the 2-pole 1/4-inch jack for speaker connection, pointing out that amplifiers capable of delivering more than 800W cannot comply with European touch-proof safety regulations with a jack.

New versions of the BNC complete the line-up, offering three versions: a non-locking budget model, a standard bayonet type, and a push-pull.

Neutrik 421

CONSOLES

Gemini

The three Platinum Series 19-inch rack-mounting mixers all have four stereo channels, with three phono/line sockets, five dedicated line and three mic connections. Also included are assignable, removable crossfader, loop inputs and outputs, plus a DJ mic socket on Neutrik combo connector. In addition to the PS-700, there is a PS-800 with six sound effects and the PS-900 with 24 second digital sampler, which has five memory banks and battery back-up to retain samples. All three units are said to benefit from advanced cue facilities and cut controls on the low, mid and high bands.

Gemini 433

Citronic

The Pro-8 professional DJ mixer has rotary kill functions with 30dB of cut for three bands on each input. The eight input system accepts mic, line and CD, offering three-band EQ, gain control, balance and cue. Also included are booth output, dipless beatmix crossfade, plus punch buttons and cue pan.

Citronic 431

Cloud zones

A new zone mixer which replaces the CX132, the CX133 has enhancements including an extra mono output channel, in addition to the two main stereo zones. The VCA's, formerly optional, are now permanently installed on the motherboard. There is no increase in price.

Cloud 432



LEM launches digital mixers

Italian company LEM has previewed two affordable digital mixers which are expected to start shipping later this year.

The entry level model is the Falcon which has 6 mono mic/line channels, 20-bit ADCs plus two stereo line channels and one AES-EBU/SPDIF input. Eight outputs are covered by two auxes, a digital output and main mix analogue buses. Each channel has 3-band fully parametric EQ with 4-band graphic EQ for the stereo channels and the desk can be equipped with an

optional ADAT extension interface. Two internal effects processors handle reverb and multi-effects on internal aux sends while eight other types of effect are available including dynamics, additional EQ, and enhancers.

The larger Eagle digital mixer provides 12 mono mic/line channels, four aux outputs, two reverb processors connected to two aux sends and an additional 30 different processors. This version also has motorised faders for inputs and outputs.

General Music 423

Phonic Powerpod

Powerpod 7 is a stereo mixer/amplifier with digital reverb and graphic equalisation on the outputs. The two internal 200W amplifiers can be patched FOH or split between main and monitor duties, each with overall equalisation.

Additional amplifiers can be patched into the system if required. Each of the seven input channels is fitted with three-band equalisation and the system will accommodate either seven mics or four mono line and three stereo line inputs.

Other facilities include on-board limiter, patching for an external effects unit, 48V phantom, record out and tape input.

HW International 426

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Reader Response No. 009

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Reader Response No. 010

Directional mixer

Shure's Directional IntelliMix direction sensitive mic activation is used in the AMS8100 automatic mixer which activates mics only for sounds originating within a 120-degree acceptance angle. Additionally the system can gate only one mic per sound source or multiple mics when multiple sound sources are in use. Designed for the broadcast market, the SM63LB is a black version of the company's SM63L omni dynamic mic while the VP64AL is identical to the existing VP64A except for a longer handle.

Shure 428

Citronic's zone expansion

Citronic now offers a 5-zone distribution mixer, the Z-5DM, and the Z-2A5 50W power amp. The former can be used independently or as a zone extender for an existing system and is a two stereo line mixer with five stereo outputs to which either of the inputs can be mixed. Mono or mixed distribution can be selected and while I-Os are balanced, inputs have enough gain to handle unbalanced connection. The Z-2A5 is available in low voltage and 100/70 Volt line versions and has a protect mode indicator which shows when the amp is shut down on switch on, thermal overload, DC on the output or a short circuit.

Citronic 424

Adastra

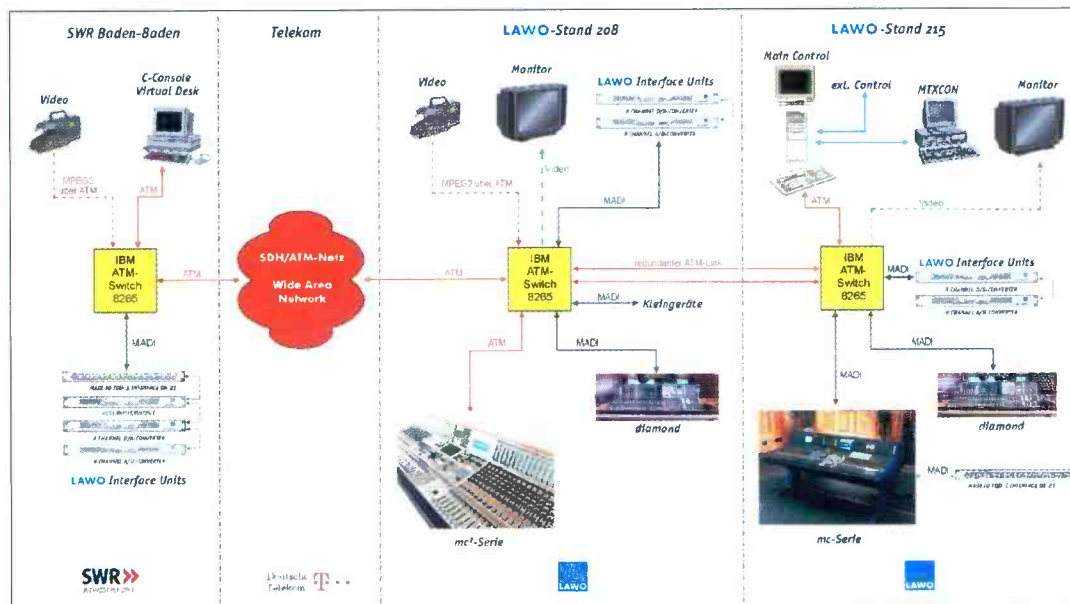
The range of Adastra mixer amplifiers has been revamped, with improved input facilities and new styling. The A55 now has an input for CD, while the larger units in the range benefit from the addition of mic/line switching. Prices have actually been reduced in some instances.

Adastra 434

D&R Airmate

Described as the Airmix's little brother, D&R's Airmate radio desk is designed for the self-op DJ. The 19-inch frame is built up of eight triple input channels with one mic and two stereo line inputs per channel. Each channel is additionally equipped with 3-band EQ and phantom power. A master section provides a clean feed output for interfacing with telephone hybrids with talkback.

D&R 430



Lawo demos real-time ATM audio transfer

Lawo demonstrated the transfer of audio data in real-time via ATM network as a WAN link at the Tonmeistertagung in Karlsruhe.

The presentation of Lawo's mc2 technology was realised by Lawo (with two booths), Deutsche Telekom and Südwestrundfunk (SWR) with live transmissions from the radio house in Baden-Baden via WAN to the Congress Centre in Karlsruhe. Co-operating IBM-Switches 8265 in Baden-Baden and Karlsruhe together with the sources, integrated mixing consoles, video cameras and

peripherals and formed a DSN (Distributed Studio Network).

Control of the sources at the SWR in Baden-Baden and mixing of the transferred audio signals in real-time were carried out on a Lawo mc2 82 production console at one Lawo booth with the signals transferred to the other Lawo booth via DSN. A video camera filmed a monitor at SWR and video and audio signals were sent simultaneously via this network.

Apart from transferring audio and video signals all other services like file transfer, telephone, LAN

and WAN can also be integrated in the DSN.

Lawo also showed its Diamond digital on-air console, which has been extended in functionality and now uses mc mechanicals. Signal processing and control surfaces are modular and complete set-ups with all audio parameters, assignments of console modules (sources to faders) and special functions may be stored and loaded from memory cards. The system can also be integrated with radio automation systems.

Lawo 588

Allen & Heath launches five desks, including digital

Allen & Heath has launched five new consoles including the digital ICON series DL1000 and DP1000 and the analogue MixWizard series WZ12:2DX, WZ16:2DX and WZ14:4:2+.

The ICON series is a range of compact digital mixers for live sound applications. The first two models in the series are the 10 input, 4 output DL1000 and a powered version, the DP1000, which comes complete with 600W into 4Ohms stereo power amplifier. Both consoles began shipping in October, with prices starting at under £1000 (UK).

DP1000 and DL1000 offer 6 mic/line inputs with 4 sweep EQ and with fully parametric mids, plus 2 dual stereo inputs which can double as mono mic inputs. In addition to the LR output, ICON consoles provide configurable AB amp outputs, plus monitor, aux and LR recording outs.

Target markets are performing artists and live sound venues and



users can program and recall settings in song patches, which can then be sequenced according to a playlist and triggered by footswitch, pushbutton or MIDI control. This preprogrammed sequence can be overridden when required. A special Pause patch sets levels and effects for between song announcements.

Key settings such as gain, levels and mutes are on dedicated controls for instant access, including

100mm faders for all inputs and main outputs. Other console settings are created and adjusted via a strip of rotary controls used in conjunction with a large backlit LCD screen.

The consoles' onboard dual 10-band graphic and amplifier configurations are stored separately in venue memories. ICONs include two built-in effects processors plus noise gates and compressors.

Allen & Heath 425

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SOUNDTRACS

Reader Response No. 011

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Telephone: (+1) 516 393 8620, Fax (+1) 516 333 9108, email: soundtracs@korgusa.com

D/ESAM plays it all from memory

The 870 4-channel RAM recorder is a plug-in option for the Graham-Patten Systems D/ESAM 820 digital edit suite audio mixer, providing up to 10 minutes of audio storage under full edit system control. It eliminates the need for a dedicated rolling audio source by fitting a module within the mixer itself, and four versions are available with varying amounts of memory from 32Mb up to the maximum 256Mb for 640 seconds of two-channel or 320 seconds of four-channel audio. Recording is 48kHz, 24-bit, and full Sony control is provided including shuttle and jog.

Graham-Patten 436

GL2200 live desk

Allen & Heath has added to its sound reinforcement console range with the introduction of the GL2200 - a 4-bus mixer available in 12, 16, 24 and 32-channel configurations. Based on the established GL2000, the new model adds channel direct outputs, mutes on groups, stereo returns and main outputs, a 12V lamp connector and an improved power supply. Other additions include an oscillator, pink noise generator and talkback routing.

A&H 427

Gemini's LED beat

BPM-250 and BPM-1000 from Gemini Sound Products are stereo preamp mixers with LED beat monitors. The BPM and beat offset indicators are designed to make it easy to see when the two tracks are in sync. Both units are rack mounting and the BPM-100 has four stereo channels, with nine programme inputs plus three mic inputs, compared to the three channels and seven inputs of the smaller mixer.

Common to both are -26dB Extreme Cut for selective removal of the low mid or high frequencies of each channel. The crossfader is recessed for more comfortable operation. Other features include 12V BNC light jack, XLR combo socket for the mic input, removable crossfader, rotary low, mid and high gain controls for each channel, talkover switch, DJ booth output and cue section.

Gemini 439

Biamp Systems

Aimed at corporate and conferencing applications, manufacturer Biamp has a number of new products in its Advantage range for auto-mixing and signal processing.

The Advantage Auto One is an automatic mixer with eight balanced mic/line inputs, plus balanced main and aux outputs. Adaptive threshold sensing and speech frequency filtering are used to minimise false gate triggering and 6dB of hysteresis has been selected to minimise gate flutter.

Also fitted are manual priority override, channel-off attenuation and selectable last mic hold. Multiple Auto One units can be cascaded to create systems of greater input capacity.

VRAM is a 10/2 programmable automatic mixer, which is set up with a PC and has no external controls. Audio facilities are similar to the Audio One but there are 15 non-volatile memory presets and it is also possible to control contact closures remotely.

Also available is VRAMEq, which has three-band EQ with variable mid, in addition to the functions above, and DDL-12, a dedicated delay line with eight presets that are adjusted via a PC.

Biamp also offers the MSP-11 and MSP-12 multifunction system processors which combine gain management, equalisation and delay in a 1U package.

The single channel MSP-11 includes six bands of variable notch filtering and the dual channel DSP-22 includes a mix matrix, as well as a mono two-way crossover mode.

Fuzion 435

NuStar digital radio desk

The Audiotronics NuStar 3001 affordable digital radio console has been redesigned following the acquisition of the company by Broadcast Electronics.

The desk offers 4 stereo output buses, 4 telephone caller input modules with incremental mix-minus for each, and frame sizes ranging from 24 to 30 positions.

The on-air or production 2500 console now sports an AES-EBU input module and comes with 6 to 24 inputs in a table-top or drop-in design. Other features include solid state switching of signal paths and DC control of all level functions.

Broadcast Electronics 429



Soundcraft Series 15 on-air desk

Designed for on-air use, Soundcraft's Series 15 console comes from the same family as the Series 10 radio desk but adds facilities for general production. Available in 16, 24 or 32 frame sizes, the desk is modular and has as standard 4 stereo groups, insert

points and comprehensive monitoring. Mono and stereo inputs are provided in broadcast and production versions and a choice of telco input modules is available from an option list that numbers 35 different module types.

Soundcraft 437



D&R's Cinemix adds film panel

D&R has added a film-style master section option to its Cinemix console which can handle mono, stereo, LCRS and 5.1 channel formats.

The new section offers discrete assignment of input signals to all individual buses and joysticks; bus formats are selectable between the aforementioned formats; access to group output buses for surround pan pots and input modules; access to group output buses for both joysticks; and an extensive selective muting system of individual channels.

The film master allows engineers to work on a maximum of four premixes/stems of six buses

each simultaneously and a stem return module is available as an option.

The monitoring matrix module is 24 x 2 x 6 allowing stem/premix returns to be fed into the console's control room monitoring section. Using this module, no inputs (traditionally the upper faders) need to be sacrificed for monitoring purposes.

The monitoring matrix module caters for four groups of six inputs each and all four groups are fitted with bypassable level adjustment trimpots. All inputs are provided with Direct/Playback, mute and solo switches.

D&R 438

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24

ADVANTA

06

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Pioneer's DJ

Specifically targeted at the entry level marketplace, Pioneer's Performance series consists of three new products with DJs and CDJs in mind. CDJ-100S is a slot-in CD Turntable with a range of functions to allow sound manipulation without a mixer. A jog dial allows track cueing and manipulation in a vinyl style, while the Digital Jog Break has three buttons creating Jet, Zip and Wah effects when used in conjunction with the jog dial. The tray-free front loading disc mechanism allows much faster disc change and there is a quick start mechanism, said to go into play mode in 0.01 seconds or less. A 100mm fader gives control over tempo in either 0.1% or 0.2% steps, in conjunction with a step-accurate tempo readout.

DJM-300S is a two channel mixer, designed for use with the CDJ-100S and the EFX-500, a digital effects unit designed for real-time manipulation. Effects include delay, echo, autopan, flanger, pitch-shifter and reverb, all linked to the BPM of the source.

Pioneer

441

Tascam digital desk bridges gap in range

Tascam has bridged the gap between its TM-D1000 and TM-D8000 digital desks with the TM-D4000 model, the first to sport motorised faders and 100mm ones at that. Priced at US\$4,299 it is expected to hit the street in the first quarter of next year.

Essentially a stripped-down TM-D8000, the desk has 32 mono and 2 stereo inputs, 8 buses and a channel strip that has 6 auxes, 4-band EQ and dynamics on each channel. Automation is restricted to snapshot onboard with full

dynamic automation realised via a PC-based package.

Three expansion slots are available for interface cards to TDIF, AES-EBU, additional analogue and, for the first time, ADAT. These appear at channels 9 to 32 on the layered fader surface.

Standard features include machine control with jog-shuttle and record arming plus the ability to multichannel pan through the first six buses. Convertors are 24-bit and operation centres around an LCD, but with only four associ-



ated rotaries.

TM-D4000s can be cascaded, have onboard stereo digital effects, MIDI, and EQ and dynamics libraries.

Tascam

440

Harrison debuts Digital Engine

Harrison has shown its long expected Digital Engine replacement rack for the analogue in its existing digitally controlled analogue systems.

User interfaces remain unchanged and the technology applies to its Series 12 and MPC boards. Processing is courtesy of SHARCs and the system will enable digital and analogue, mix and match, hybrid arrangements to be created including retrofits.

The Engine will support 576 full channels, 1,344 inputs and 1,344

outputs, 136 console-wide summing buses and full monitoring capabilities.

Harrison stresses that processing is dedicated and not shared or allocated. Every channel has dynamics, 4-band parametric EQ, high and low-pass filters, 32 auxes and panning for all surround formats via 72 main recording buses and 24 reassign buses.

Control is via proprietary PCI-based I-O and comms systems. Harrison claims 'sub-millisecond' processing speed from any input to



any output including conversions.

Harrison claims the desk is 40-bit, 96kHz capable and expects to start shipping at the beginning of 1999.

Harrison

589

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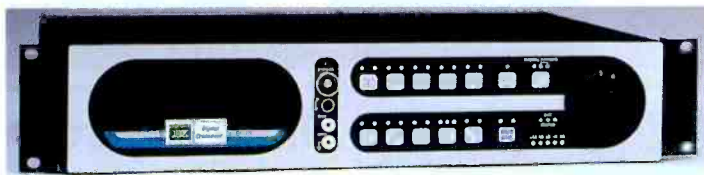
Dolby Digital encoding price slash

Dolby has slashed the price of Dolby Digital encoding with the release of the \$5000 (US) DP569 at the San Francisco AES and paved the way for entry-level multichannel working in light of

the promised explosion in DVD and DTV.

The new encoder costs some 74% less than its PC-based predecessor but has even more features.

Dolby 442



Lucasfilm THX monitor crossover

Lucasfilm THX has introduced the D1138 monitor-digital crossover which has an 8-channel input stage in analogue and digital and a software configurable output stage for compatibility with all formats. Output stages also offer adjustable delays and digital EQ for surround and subwoofer channels.

For postproduction it combines numerous functions in one product including customisable computer control for channel solo and muting, digital delays for all channels and THX standardised subwoofer monitoring of screen and surround channels for discrete and matrix sources.

THX 443

XTA offers distribution system

XA is to launch the DS800 8-input, 32-output audio distribution system. In standard format each input is split into two transformer isolated outputs and two actively balanced outputs. The unit can be internally reconfigured to give more than the standard four outputs from each input up to a total of 32.

Each input has a remote activated pad, adjustable input gain, mic/line switch, phantom power, 5-segment LED metering and a listen facility. An headphones socket and level pot are included and the listen function can be ganged together when using multiple units.

XTA 444

New DK-Audio

MSD600M is a modular master stereo display, which allows users to expand their system as needs arise. It is possible to start with a two-channel system and increase it to eight analogue inputs and four AES-EBU digital inputs. A utility module provides RS232 communications, VGA output and a sync input which can also be used as an additional AES-EBU input.

MSD600C is particularly recommended for surround sound applications, where its 'jelly fish' displays assist in visualising 5.1 and 7.1 formats. The DK-Scale program allows users to design their own scales, while the dual dynamic bargraph feature allows simultaneous presentation of vu and PPM. DK-Scale software can be downloaded via the Internet from www.dk-audio.dk.

DK-Audio 454

Plasmon Net

Plasmon's NetReady storage server combines technology from its multitasking Manager software family with Direct Network Attach technology to provide network connectivity for D-Series CD jukeboxes.

All the user has to do is assign an IP address to allow independent or concurrent access to jukeboxes via Windows NT, Novell NetWare or Unix networks. Two jukeboxes can be supported on each network node and true multitasking multi-threaded operation is provided.

Caching on the built-in hard drive retains recently-used files to improve search performance across connected jukeboxes and minimise robotic movements within the mechanisms.

Plasmon Data 449

Sample Rate Systems

Designed as a no compromise solution for high-end home theatre equipment, the Generation II B home theatre engine can decode surround formats Dolby Digital, Pro Logic and DTS. It also provides THX processing, tone controls, music modes, bass management, master volume, volume trim and six individual delay controls. One Crystal A-D and three Crystal D-As are used in conjunction with three Motorola processors for 24-bit resolution throughout. Each Motorola chip has 130MIPS of processing power and handles one of the three 5.1 formats. The new engine is pin compatible with the existing Generation II and III systems. According to the manufacturer, the Generation IIB can also be made without the THX and DTS decoding for a more cost-effective product.

Sample Rate Systems 453

M&K bass control

Designed for multichannel material, the Miller & Kreissel LFE4 studio bass management controller accepts full range inputs from the LCR, LS, and RS channels plus an input for the LFE channel and then provides an 80Hz high pass filter for the five main channels and redirects the bass content to one or more subwoofers. It also provides an 80Hz low pass filter for the subwoofer feed with 125Hz low pass filter for the LFE channel and ensures the proper relationship between the LFE and the other channels for the encoding format. The unit can also be used for stereo mixes and 7.1 formats can be supported.

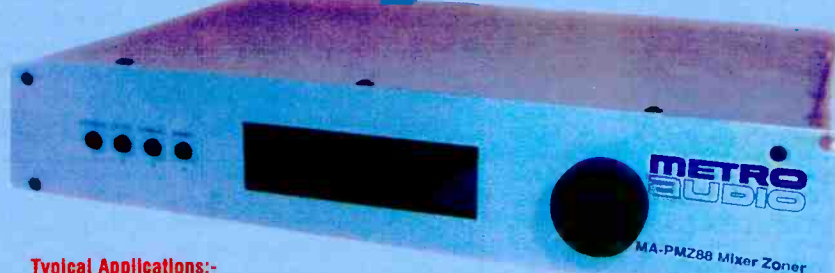
Miller & Kreissel 446

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Reader Response No. 014

Otari 128-channel fibre optic solutions

Otari's Lightwinder uses fibre optic cable to transmit 128 channels of up to 24-bit, 48kHz audio 3km between units and 16 units can be chained together for a maximum transmission length of 45km.

LW50 includes control and off-line editing software for PC, which enables remote control of routing, mic/line gain and setups. Interface options include video, A-D and D-A, AES-EBU, 4-channel intercom and control data I-Os.

Otari 445

Leader

The Leader 3216 synthesised standard signal generator can generate FM signals modulated from 0-99.9kHz and AM signals modulated from 0%-60%, in 0.1kHz or 0.1% steps respectively. Signal frequencies from 100kHz-140MHz can be set via a 10-key or rotary encoder and digital selection keys.

Frequency is displayed on a readout in MHz, with a resolution of 100Hz from 100kHz to just below 30MHz and 1kHz from 30MHz to 140MHz.

Thurlby Thandar 448

Surrounded by Lake

Lake DSP has demonstrated its new Audio Display Tools software for production of three-dimensional audio performances for large audiences over multichannel loudspeaker systems.

Intended for applications from theatre to theme park rides, ADT allows sounds to be manipulated and moved in three dimensions with distance and perspective, and avoids the limitations of an audience sweet spot. Up to 32 independent sound sources can be handled simultaneously, and the system synchronises to external time code for integration with existing editing environments.

Preset movement patterns are provided, and it has the capacity to draw 3D trajectories directly into the system using a motion capturing system such as the Polhemus Insidetrek, a magnetic-field-based system that acts like a 3D mouse. Future plans include direct production of 5.1 channel surround, naturally sacrificing the height aspect.

Lake DSP 452

Pocket sized generator

Minirator MR1 is the first of a new generation of pocket-size audio tools from Neutrik and is an analogue audio generator.

The lightweight and battery-powered instrument provides sinusoidal signals over the 20Hz-20kHz band at levels from -76dBu to +6dB including sweep at various speeds.

A dedicated polarity test signal is included and pink and white noise signals have low crest factors and high repetition rates.

Neutrik 450



APT adds network transceiver

APT has demonstrated its Broadcast Communications Frame and Broadcast Network Transceiver.

The former is an apt-based codec designed for direct dial ISDN and permanent link T1, E1, satellite and microwave and facilitates transmission bandwidths up to 15kHz stereo.

It also features an integral X.21 DTE interface and is capable of

operating four ISDN B channels with an integral terminal adapter and comes with analogue and AES-EBU I-Os and sample rate convertor.

The Broadcast Network transceiver NCXL384D is targeted at fixed digital links and caters for 22kHz stereo. Features include integral back-up circuitry and an aux data capability.

APT 447

In-picture meter

Chromatec has introduced the AM32 in-picture multichannel audio meter which offers a variety of set-up and display options fully customisable by the user to their own needs.

From US company Wohler Technologies comes a range of powered audio monitors which combine metering and self-pow-

ered high quality drivers in rack-mount units in 1U and 2U high sizes.

For example, the ATSC/DVB series of powered audio monitors are designed for monitoring six channels and handle analogue, AES-EBU and ATSC/MPEG inputs while the VAMP-SDI permits the monitoring of audio and video (via built-in LCD) in one 2U rackmount.

MS&P 591

Shure control

Shure's new multifunction processor, the computer-controlled DP11EQ, is designed to provide all the signal processing capabilities needed for control of loudspeaker arrays. The half-width 1U box contains, in the digital domain, dynamics, parametric EQ and delay under the control of Windows software via the proprietary ShureLink interface.

Dynamic functions include compressor, limiter, gate and expander as well as automatic gain control and a no-overshoot peak limiter. Up to nine bands of parametric EQ can be configured, together with shelving filters, and the package is completed by up to 1.3 seconds of delay.

The control software has several displays, including a transfer function display to show the transfer curve created by the combination of dynamics. The associated input and output meters can be clicked on to set thresholds and ratios. Complete settings can be stored on the PC, and the unit's own front panel controls can be locked out from the PC to prevent tampering. The ShureLink interface forms part of a system approach that can integrate up to 16 units including the DP11EQ, the DFR11EQ feedback reducer and the UA888 UHF wireless networking interface.

Shure 451



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HD playback

Denon has announced the DN-HD hard disk replay system for background music. It features a 4.3Gb removable hard drive with security key, a single disc CD-ROM drive for data transfer and security checking and a 233 MMX processor running management software under Windows 95.

Recording uses MPEG1 Layer 2 coding for 82 hours of mono playback with a built-in modem for remote interrogation and reprogramming. Comms ports allow interfacing with other systems.

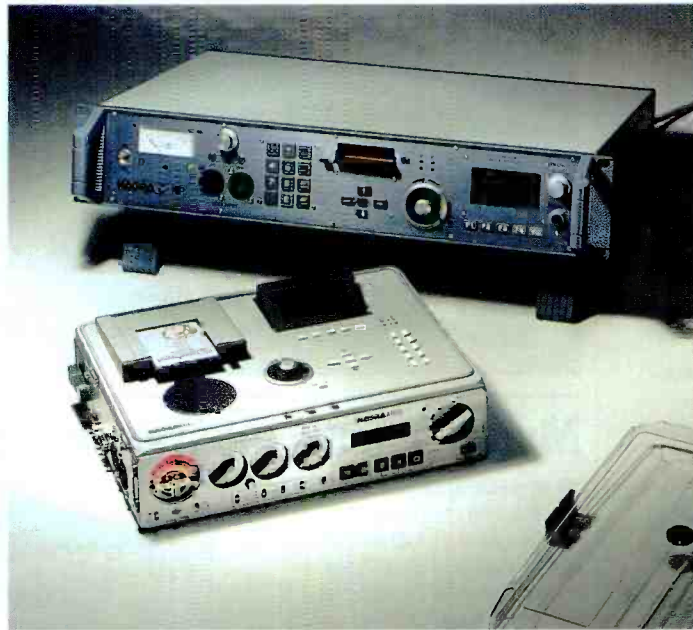
The output is on balanced XLR, status reports are shown on a two-line LCD while basic operation is via four front panel buttons.

Denon 457

Darwin upgrade

The Darwin system has new version 2.5 software and the long anticipated SMPTE sync card. Besides allowing generation of and syncing to all forms of code plus word clock, the new software adds new features including Autopunch and support for 4Gb SCSI hard drives.

EMU-Ensoniq 462



V3.00 for ARES-C and CPP

V3.00 software for Nagra-Kudelski's ARES-C portable solid state portable recorder and CPP rackmount ISDN codec variant adds features aimed at radio. Simplification of on-screen menus can be assigned on a job specific basis. The upgrade also enables the use of bi-directional MPEG encoded uplink-downlink over ISDN with the option of mixing playback files with mic or line input.

Compatibility has been improved with Studer Digitec Numysis, DAVID, Digigram Xtrack and Dalet workstation systems.

Nagra-Kudelski

456

170 plug-ins in one

In a new approach to TDM plug-in creation, DUY is offering DSPider; 40 separate modules that can be used to build a vast palette of effects. The building blocks cover everything from reverbs and delays to emulations of analogue synthesiser modules, and a library of over 170 patches is provided to show what it can do. These include tools like dynamic processors, noise reduction systems and de-essers as well as synthesisers, sound effects generators and 3D effects. Two modes of operation are available, a simple Reader mode for calling up the library patches, and an Advanced mode for editing the patches and creating new ones. A Patch Manager facility allows the automatic switching of patches within a Pro Tools project, helping to optimise the DSP demands. A further twist is that DUY is encouraging third party development of patches and allowing their commercial exploitation. With this in mind there is a Locked-Patch option to allow the inner workings of a patch to remain hidden from the user so that developers can maintain the secrecy of their algorithms.

DUY Research

467

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The official website of Studio Sound, Pro Sound News Europe,
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Reader Response No. 016

20

HARD DISK



Genex DSD

The HHB Genex GX8500 is described as the world's first DSD compatible digital audio recorder. Equipped for Super Audio CD recording, the GX8500 also supports UDF (Universal Disc Format) for DVD mastering and BWF (Broadcast Wave File), and features SDIF 2 and AES-EBU I/Os. Existing GX8000 owners can upgrade to GX8500 specification.

HHB 463

Mytek 24/96 master recorder and DAW

Mytek Digital has introduced the D-Master 9624 4-channel A-D and D-A mastering converter integrated with a hard disk recorder. Powered by the Crystal Semiconductor CS 5396 chip it is being billed as a \$5,000(US) replacement for 1/2-inch tape.

Directed at recording studio mixing rooms, high-end mastering facilities, and remote live recording, the device includes audiophile grade A-D and D-A converters, several selectable sampling rates, noise shaping, headphone amplifier, external synchronisation and transport controls and SCSI inter-



face for direct to hard disk or DVD-RAM recording.

The news coincides with a tie up with Sonorus which employs Mytek's 8-channel 24-bit, 96kHz 8X96 series converters and Sonorus' Studio/o card in a new Mytek/Sonorus DAW 9624. This multichannel hardware package is capable of running various third party 24-bit 96kHz software packages for Mac and PC. Depending on the software

chosen, DAW 9624 can be configured as a general purpose multichannel DAW, or CD/DVD mastering, Foley, or film sound workstations. Current 24/96-capable software choices include Cubase VST/24, Samplitude 2496, SAWPro, Wavelab, Cakewalk 8 and plug-ins such as Waves NPP. DAW 9624 will run all 48kHz and 44.1kHz software as well.

Mytek 465

Fairlight compatibility grows

Further harmonisation between digital formats comes with the announcement of an agreement between Fairlight and Digidesign to allow import and export between Fairlight and Pro Tools systems.

Fairlight's MFX3, FAME and DaD dubber systems will all be able to work with Digi formats, and this follows news that the systems

can support direct file exchange with WaveFrame, Akai and Lightworks formats as well as .WAV.

Other new software features are included, among them the ability to mix bit widths within a project, allowing new 20 or 24-bit material to be used with existing 16-bit library material, and even crossfading with it seamlessly.

Fairlight 474

Sound FX now on the web

US feature film sound design team Sound Dogs has posted a large portion of its sound effects library and the Sound Ideas sound library on its web site (www.sounddogs.com) for purchase and use royalty-free by others.

The sound database has sounds categorised by category, sub-category, unique quality, and file name, and each sound is generally

tagged with a one-paragraph description, where and at what time of year the sound was recorded, and its length.

The price of sounds is determined by a combination of sound quality, 24-bit/16-bit/8-bit depths and 48, 44.1, 22.05, and 11kHz sampling rates are available in .AIFF, .AU, .WAV, and other formats.

Sound Dogs 460

MetaLithic leads the Elite

The Elite Studio audio interface from MetaLithic is part of the upward drive in PC audio quality.

The interface offers eight analogue inputs and outputs as well as SPDIF, and is intended to form the hardware platform for a variety of software packages including Cubase VST, Cakewalk Pro Audio, Acid, Sound Forge and Wavelab. 20-bit converters are employed, and are sited outside the PC in a rackmount breakout box for quiet operation.

The breakout box is connected to the host computer via a single standard LAN cable.

The first strategic alliances have been set up between MetaLithic and software companies Steinberg and Cakewalk, in order to get the most out of the Elite Studio interface's potential.

The product already supports Steinberg's ASIO (Audio Stream Input Output) drivers for efficient multichannel operation with Cubase VST and other ASIO-based products.

MetaLithic Systems 469

FOR FURTHER PRODUCT INFORMATION USE OUR FREE ENQUIRY SERVICE

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VS-880EX RRP £1499

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- 8 tracks of fully digital recording, 64 Virtual Tracks
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VS-1680 RRP £2199

Roland's flagship professional digital audio workstation.

- 16-track recording capability
 - 256 Virtual Tracks
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- Up to 8 channels of optional effects processing
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Roland (UK) Ltd, Atlantic Close, Swansea SA7 9FJ, UK web site: <http://www.roland.co.uk>

Reader Response No. 017



Fostex debuts 8-track multitracker

Building on the success of its FD4 digital multitracker, Fostex has unveiled the FD8 8-track recorder. Storage is uncompressed 44.1kHz, 16-bit linear and the user is free to choose media.

The machine accommodates 16 additional virtual tracks and any 8 can be played back simultaneously. An increased recording time mode called Advanced Digital Audio Acoustic Coding was co-developed by Fostex and Matsushita to yield 20 minutes of 8-track recording from a 230Mb drive.

The FD8 has an ADAT optical interface and copy, paste, move, and erase editing. A rudimentary mixing section is included in a unit which has an anticipated price of \$899 US.

Fostex 466

Sonic Solutions ready for next generation

Sonic Solutions appears to be covering all the bases with its SonicStudio HD, a high resolution editing system designed to cope with both SA-CD and DVD-Audio in whatever form is required.

Its conventional PCM capabilities now extend to 192kHz stereo audio or up to six channels at 96kHz – in anticipation of high-resolution discrete surround – all with 24-bit resolution.

SA-CD preparation is catered for with new Direct Stream Digital editing capabilities. These have been developed over the last year in conjunction with Sony, making

Sonic the first DAW able to deal with the new processing demands of DSD.

Sonic's new DVD-Audio authoring system has already been put to the test in a joint venture with Pioneer, resulting in a disc to test for compliance with the new standard with tones up to stereo 24-bit 192 kHz scalable High-Density Audio, as well as surround versions.

Sonic technology has also been used to create the world's first multi-format DVD release, from country star Travis Tritt, incorporating concert footage from user-

selectable multiple camera angles, interactivity for PC DVD-ROM drives, and full uncompressed High-Density Audio.

In a separate move, Sonic Solutions has announced file format transfer capability between SonicStudio systems and Tascam/TimeLine Vista dubbers. This will enable the MMR-8 and MMP-16 dubbers to play Sonic audio files and EDLs directly, and provide file conversion between Sonic and OMF, WaveFrame, Akai DD8 and other workstation formats.

Sonic Solutions 472

Cycling '74 launches VST Pluggo

Cycling '74 has announced Pluggo, a technology that enables Macintosh signal processing applications developed with MSP audio objects to work as a VST PlugIn.

MSP is a set of DSP extensions to the MAX 3.5 graphical programming environment. MSP consists of over 75 objects that synthesise, process, analyse and delay audio signals in real-time on a Power PC Mac OS computer.

It is described as a shell that allows the signal processing patches created with MSP to work in other programs as VST PlugIns, thus making MSP's individually customised approach to DSP sound design available to a broader audience of sequencer users.

Cycling '74 will introduce a web site where new effects patches will be made available to Pluggo and MSP users at regular intervals.

Cycling '74 464

Short/Cut 99

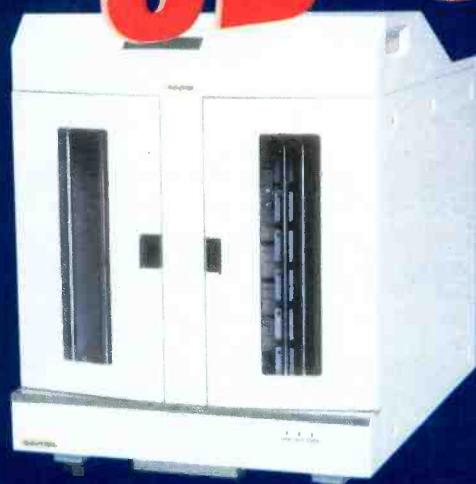
Manufacturer 360 Systems has announced the release next year of a powerful software update for its Short/Cut editor. Called Short/Cut 99, the 2-channel digital editor will support file interchange including .WAV, .BWF and .AIFF while other features will include the generation of fade in and fade out, crossfade options and support for larger capacity hard disk storage.

360 Systems 459

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* Windows NT availability expected late 1998

Pro Tools | 24 MIXplus:

Even More Mixing Power — 7 Times the DSP Power of Pro Tools | 24!

Check out this sample Pro Tools | 24 MIXplus setup:

- 32 tracks (up to 64 possible)
- 4-band EQ and dynamics on every disk track
- 2 TC reverbs
- 10 delay-based effects
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Reader Response No. 020

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Plus:

- Save 30 set-ups to non-volatile memory
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- Pass mode - sends input to output while you modify status bytes, validity bit etc.

This is a true dual domain analyser with independent analogue & digital generators and analysers. It is fully portable with a rugged metal casing. Comprehensive Interfaces include a GPIB option.

SADiE surrounded by Dolby

Studio Audio & Video has taken the surround capabilities of its new 24-96 workstation a stage further by showing its integration with Dolby's DP569 Dolby Digital encoder for DVD preparation.

24-96's mixer now has full mouse-controlled automated surround panning, and the resulting buses can be fed out to the Dolby encoder and back to the disk with SADiE, all under the control of the SADiE PC.

These files can then be sent to a DVD authoring workstation via network or removable medium.

The DP569 encoder supports Dolby Digital bit rates from 56 to 640kbit/s, and channel configurations from mono to 5.1.

Dialogue normalisation and dynamic range control can be set and monitored from the Windows control interface, and the results monitored via the DP562 reference decoder.

SADiE and Octavia software is now in version 3.6, which introduces Regional Editing, making it easier to work across multiple tracks simultaneously.

SAV

479

WaveMechanics uses blender

From the design team that created the Eventide H3000 and H4000 comes a pair of TDM plug-ins known jointly as SoundBlender.

Complementing WaveMechanics' PurePitch, the package comprises PitchBlender and TimeBlender and offers a wide range of pitch shift and reverse pitch shift effects.

Together the pair can produce random micro pitch shift, two-voice intelligent harmonising, diatonic arpeggiation, backwards pitch shift, triggered stutter effects, ducked delays, BPM autopanning, triggered tremolo, stereo vibrato, chorus and triggered ambience effects.

In all there are 24 modulatable parameters driven from three modulation sources with 14 modulation types.

WaveMechanics

473

Manopix offers 8x MO drive

Now shipping, the T6-5200 is an 8x capacity MO drive that supports 5.2Gb media and is read-write compatible with all four generations of ISO standards.

It has a maximum 20Mbps data transfer rate and 20ms average seek time. Upgrades are available for existing customers and there is a two year warranty.

Manopix

477

Look out for What's

New in Pro Audio issue

No.6, summer 1999!

Tripping data with Glyph Technologies

Storage and networking specialist Glyph Technologies has launched a customisable rack-mount data storage system known as Trip.

The 3U box can accommodate a wide variety of storage devices for applications across the board, and while there are three off-the-shelf configuration suggestions the actual selection is up to the user.

The three are instructive examples of the possibilities. The QuadraBurn Trip contains four 4x write/8x read CD writers, an Adaptec SCSI card and Prassi CD Rep recording software for PC compatibles.

Alternatively, Trip for Pro Tools provides two hot-swappable Kingston drives or up to 46Gb hard drives, a tape backup unit and a CD Recorder configured for Pro Tools; while Trip for Paris is populated with appropriate drives for the Ensoniq Paris.

Glyph Technologies

476

Auto-Tune PC

Antares' Auto-Tune pitch correction plug-in is now available for the PC. Auto-Tune DirectX incorporates all the features of the Macintosh version, offering real-time pitch correction of a monophonic line to a predetermined scale.

Comprehensive user adjustments allow the process to accommodate performance aspects like vibrato and glides, and its Graphical Mode shows a representation of the pitch contour with a selection of tools for modifying the pitch in a variety of ways.

Antares

468

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Soundscape™

DIGITAL TECHNOLOGY

mixtreme™

Designed for



Microsoft
Windows NT
Windows 95

Digital Mixing, Real-Time Effects, 16 inputs & outputs, any questions?



There are many companies in the market place offering multi-channel audio PCI cards, but for most, this is where it ends. Most companies can at best just 'put chips on boards', but from Soundscape Digital Technology there is an unbeatable combination of software and hardware... **mixtreme**.

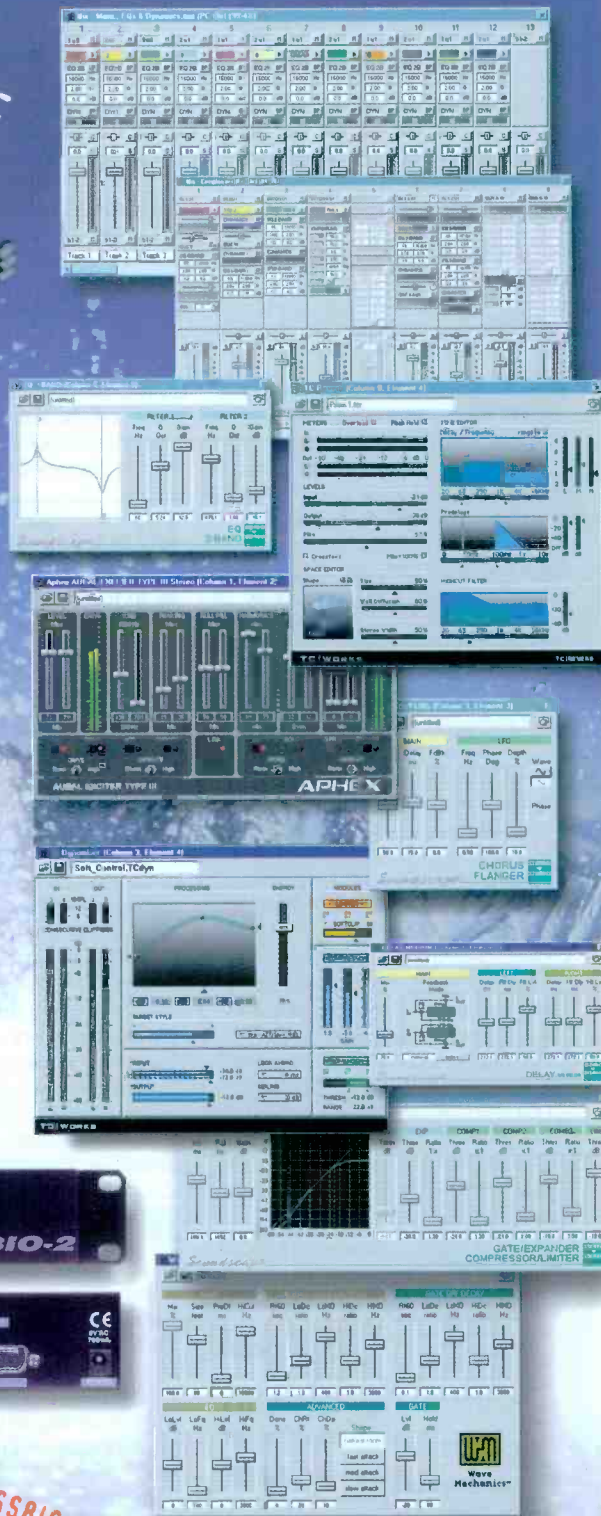
The **mixtreme** PCI card has a completely different concept, as not only does it provide 16 channels of 24 bit digital I/O via two industry standard 8 channel TDIF (Tascam Digital Interface) ports, but it also has 24 bit custom digital mixing and real-time DSP effects plug-ins from some of the worlds' leading audio companies.

mixtreme performs like you expect, without the annoying in/out delays that make native mixing and effects impossible to use in real time.

You can connect two Soundscape SS810-3 8-Channel TDIF to Analogue interfaces to **mixtreme**, for a full 16 channels of 20 bit analogue input and output, or you can connect the TDIF directly to a digital console or Tascam DA-88.

For ADAT users, there is the SS810-2 TDIF to ADAT converter, and you can connect two of these, or combine one ADAT and one Analogue interface. Optional SPDIF completes the range of Digital Connections available.

With standard Multimedia drivers for Windows 95 and Windows NT, plus VST compatible ASIO drivers, **mixtreme** can be used with most PC based MIDI/Audio sequencers or PC based recording/editing software.



SS810-3 Interface

- 8 channel TDIF to unbalanced analogue I/O (cinch/RCA connectors)
- 20 bit AD/DA Converters
- Wordclock/Superclock in/out

SS810-3
£449.00

SS810-2 Interface

- 8 channel TDIF to ADAT 'lightpipe' conversion in both directions (simultaneously)
- Wordclock/Superclock In/out

SS810-2
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Reader Response No. 021

TDIF

Soundscape Version 2.0

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http://www.soundscape-digital.com

Rorke network solution

Rorke Data's StudioNet-FC is a new complete Fibre Channel network and storage system for multiple workstations. Centralised storage is available in a range of expandable configurations up to in excess of 2 Terabytes, configured as JBOD (Just a Bunch Of Disks) or RAID 0, and can be configured for single host storage or multiple host storage. The network itself offers fast full-duplex serial communications at rates up to 200Mb/s, and is intended to overcome the limitations of SCSI technology such as termination, IDs, cable length restrictions and reliability.

Rorke Data 461

EMU shows its strengths

EMU-Ensoniq has debuted the Mantis modular digital mixing system, providing 112 inputs in a modular framework run from Mac or PC mixing software. The scale is shown by the 32 output buses, 4-band EQ and dynamics on every channel, and 12 auxes of which four are sent to the internal 32-bit effects engine. Dynamic automation and surround sound mixing support are complemented by a dedicated control surface and support for Mackie's HUI. I-O options include analogue mic inputs with 24-bit converters, as well as multiple digital interfaces including a new proprietary low-cost interconnect format that EMU is calling EDI for EMU Digital Interface. Two entry-level Paris systems have been introduced, with full-blown Paris software running on scaled-down hardware. The Concept comes with a 2-channel audio interface and the EDS-500 PCI card, while the Concept-FX upgrades to the EDS-1000 card and adds a complete selection of real-time 24-bit effects including dynamics and reverbs.

EMU-Ensoniq 470

BSS launches Opal graphic

BSS has added a graphic equaliser to its Opal series. The PC3896 is based on constant Q technology which maintains filter width regardless of filter gain setting. Separate HF and LF contour filters are provided along with a variable 18dB/octave high pass filter. Output level is monitored by LED meter and a clip warning LED. On an electronic display associated with transformers an option.



Audio Design hits brick wall

Designed for the Cable TV on the UK, DBL-1 is a digital broadcast transmission limiter, described as the ultimate brick wall level controller.



Rapid Response cards are at the back of the book

Yamaha launches 8-track MO standalone

Yamaha has announced the sub-US\$3000 D24 24-bit, 96kHz digital recorder based around removable 3.5-inch magneto-optical disks. The machine offers 16-bit, 20-bit, 24-bit, 8-track simultaneous record and play capability at 44.1kHz and 48kHz, and 4-track record-play at 96kHz. Up to eight units can be synchronised together to create a larger system and delivery is expected to begin in the first quarter of next year.



The D24 is intended to serve as a multitrack recorder for music recording and mixdown, post audio applications for television and film, and live playback for theatre and other live-sound applications.

Editing options include copy, move, erase, delete and merge and tracks can be merged. Varispeed is ±6%. Each track also includes 8 virtual tracks for a total of 64 while

8-track recording time is 15 minutes at 16-bit, 44.1kHz and 9 minutes at 24-bit, 48kHz on a 640Mb disk. Four-track recording time is 9 minutes at 24-bit, 96kHz and 512 songs can be recorded on each disk. The machine can be connected to external hard drives via a SCSI-II connector.

The D24 syncs to MTC and SMPTE, video sync and word clock and is controlled via MMC,

9-pin or an optional remote. Thoughtful features on a box of this nature are time compression-expansion (50%-200%) two tracks at a time and pitch can also be altered two tracks at a time without changing the tempo or duration of audio material.

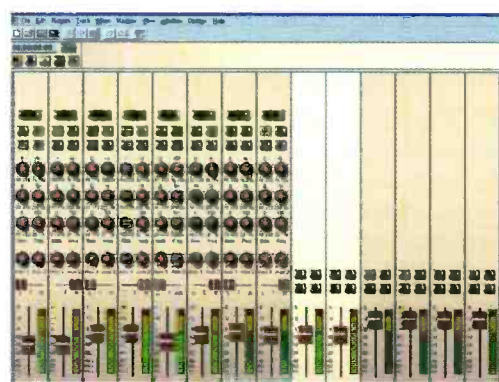
The machine offers 01V-sized interface cards in ADAT, TDIF, AES-EBU and analogue formats.

Yamaha 471

WaveFrame widens DAW compatibility

New products from the WaveFrame stable see enhanced compatibility with other equipment and steps forward in capabilities. The 408-Plus, provides 8-track playback from a single SCSI bus in the format used in Tascam's MMR-8 dubber, allowing quick and easy transfer of media between systems. It comes as standard with the new R8-Plus board that brings increased SCSI capability, and this board is available as a retrofit to any existing WaveFrame DAW running new version 6.2 software.

DIO-8 digital I-O board, with eight channels of AES-EBU input and output. Three of these can be accommodated in any system to provide 24 channels of digital I-O.



Soon to be released is WaveFrame 7.0, adding more tracks per SCSI bus, 24-bit operation with 96kHz to follow, Windows NT support, Fibre Channel networking support, and a sophisticated automated mixer. Plug-in support will be implemented using the architecture of Digital Audio Labs, with processes available from Waves, Wave Mechanics, Q-

Sound, Antares, Aphex, Vocalign and others. WaveFrame will start at 16 tracks, and users purchasing a 408-Plus system prior to 7.0 shipment will be able to upgrade for the price of an 8 to 16 track upgrade.

WaveFrame 475

Bias Peak climbs higher with major upgrade

In a comprehensive revision, Bias has introduced Peak version 2.0, the latest version of its Mac editing software. DAE support is added, along with the ability to use Adobe Premiere audio plug-ins and full SMPTE synchronisation. RealAudio 5.0 can be encoded directly for Internet authoring, and CDs can be burnt directly from the playlist to most popular burners.

The user interface has been improved to take advantage of Mac OS8, and a QuickTime movie window has been added, compatible with Peak's scrubbing capabilities.

New support for third party hardware includes the Yamaha A3000 and Ensoniq ASR-X samplers and file interchange with Ensoniq's Paris file format. Several of these updates are also incorporated in version 2.0 of the entry level Peak LE.



Bias 478



Pictured top left to bottom: MCE 58, MCE 82, M 59 and M 58.

Sound that Bites...

Today's audio environment requires a range of specialist microphones to meet the demanding situations in which you have to operate.

Sound bite quality matters just as much as dialogue, that's why beyerdynamic has developed its range of ENG/ EFP microphones. Whether it's microphones for interview, sports commentary, foley or film dialogue — we have the products devoted to the task of capturing all your audio moments.

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beyerdynamic 

Reader Response No. 022

Catch the Tube

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AT4060

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Reader Response No. 023



CAD sends in the cleaners

CAD has shown the first fruits of its new clean room capsule facility, headed up by the new VSM-1 tube condenser microphone.

It uses the new Optema Series 1.1-inch diaphragm capsule with a servo valve, combining elements of the VX2's valve technology and the servo technology from the Equitek Series.

This is claimed to deliver extraordinary bandwidth, frequency and transients with exceptional

gain and low noise. Shared tooling with the VX2 allows aggressive pricing.

The same capsule appears in the new Equitek E-350, giving an extended LF response down to 10Hz and a high SPL capability. The microphone shares the Equitek concept of battery power supply support using a Nickel Metal Hydride battery, and will also operate from internal batteries without phantom power.

CAD

490

SPL and Brauner: 5.1 recording

In a joint venture with mic manufacturer Brauner, SPL has launched the ATMOS 5.1 Surround recording mixer, which works in conjunction with Brauner's ASM5 adjustable Surround microphone.

The ATMOS 5.1 Surround recording mixer features five high precision microphone preamps providing up to 70 dB of gain. The circuit incorporates Lundahl input transformers as well as pads, phase reverse, phantom power, low cut filters and switchable insert/tape returns. All switching uses high quality switches, and relays with gold plated contacts used throughout.

Comprising a main unit and a separate power supply, the mixer section occupies 5U of rack space with the PSU being just 1U. Mixing and 5.1 panning is possible from each channel via a front-surround control, an LCR pan control and a divergence control.

In the Subwoofer matrix, the sub signal can be selected from the front, surround, and centre signals, while in the External Mix matrix, a stereo mix can be fed to the front, centre and surround

channels. Furthermore, the stereo soundstage from the front and surround channels can be widened using all-pass stereo spreading. Two phase meters are used to display LR and SR-SL correlation and the monitor section allows each bus to be independently monitored.

Brauner's ASM5 microphone system is based around five matched microphone heads, three of which are arranged as a Decca tree to handle the LCR recording. A further two heads handle the surround information. In addition to supporting the INA 5 standard, the ASM5 allows continuous adjustment of the polar characteristic of each microphone from omnidirectional up to figure-of-eight. These adjustments are made directly from the ATMOS 5.1 Surround recording mixer.

Furthermore the positions of the SL-SR microphone heads are variable up to 90 degrees (+/-45 degrees). The ASM5 includes 25m of 12-pair screened multicore cable to connect it to the SPL ATMOS 5.1 processor.

Brauner
SPL

603
488

FREE ENQUIRY SERVICE

AKG modular pencil

Similar in presentation to AKG's C747 pencil mic, the Discreet Acoustics Mk2 is a modular system with five capsules and six installation mics - five goosenecks and one hanging module - which can be used in any combination.

A phantom powered LED ring confirms correct connection or can indicate mic activity status.

AKG 483

Audio-Technica down the tube

Audio-Technica's new AT4060, takes the established 40 Series large-diaphragm condenser microphone concept and adds valve circuitry. The slightly larger body accommodates a hand-selected pre-aged valve to deliver a vintage valve sound combined with very low noise and flat response. The separate dedicated power supply is rack-mountable and the microphone is supplied with a suspension mount as standard.

Audio-Technica 491



Sennheiser camcorder receiver

Described as the smallest diversity receiver, the Sennheiser EK 3041-U is developed for the new generation of digital ENG camcorders. The receiver is weatherproof and the size of a cigarette packet. It slots into Sony SX, Philips LSDK120 and Ikegami HLV77 camcorders without additional cables or adaptors.

The unit has 32-channel switchable frequency operation within a 24MHz window and can be supplied for operation in the 450-960MHz UHF bandwidth. It can be partnered with any current Sennheiser UHF transmitters including the SKM5000 and SKM3072 handheld and SK50 belt-pack.

Sennheiser 481

FREE ENQUIRY SERVICE



Soundfield surround goes 5.1

Soundfield is to unveil a surround sound processor which enables the conversion of B-Format information generated by SoundField microphones into 5.1, Pro Logic, and other surround formats.

The 1U-high processor makes it possible to make live surround broadcasts or recordings from a single SoundField MkV System or ST250 Portable System.

Four high resolution bargraph meters display the incoming B-Format information with individual bargraphs showing the variable front left, front right, centre, rear left, rear right, and sub bass output levels. Further stereo 'front width', 'rear width' and 'rear focus' controls are provided to compensate for speaker positioning and room acoustics.

Soundfield 484

Neumann tube

The M147 Tube mic from Neumann (\$1,995 US) has at its heart the K47 capsule made famous in the U47 and U47 FET. The supercardioid boasts low self noise for a valve mic, according to the company, and can handle a claimed 130dB SPL without distortion.

The mic employs a modern valve complemented by a transformerless output circuit for what the manufacturer describes as 'a more controlled, uncoloured audio signal from capsule to output'.

Shipping will start in December.

Neumann 486

Classic Performer

The classic 4006 omnidirectional microphone from DPA Microphones

(formerly known as Danish Pro Audio,) is a proven, no-nonsense cost effective workhorse

with an enviable pedigree. The audio professionals' choice, the 4006 embodies the finest available materials. Utilising advanced production and quality assurance

techniques, the 4006 is an indispensable tool for the professional studio or broadcast environment. Outstanding performance is characterised by an extremely linear frequency response and a very low noise floor.

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www.dpamicrophones.com

DPA
MICROPHONES

Reader Response No. 024

Shure

The UT series of UHF wireless microphone systems are said to have many of the features found on the manufacturers professional UHF products but are priced to act as an extension to the T series of VHF products. Offered in versions with up to eight compatible frequencies between 600MHz and 862MHz, each system comes with a wireless microphone or body-pack transmitter and the new MARCAD UHF diversity receiver. There are hand-held, headset, musical instrument and lavalier versions offered.

Shure**487****Audix for Xwire digital radio mics**

Xwire's digital UHF wireless microphone system, based round the XR905 digital receiver, has been enhanced with the availability of the XH905/OM6 hand-held transmitter. The system, heralded as the first of its kind, uses 20-bit A-D conversion before transmission, avoiding the use of any kind of compansion, and corresponding 20-bit converters in the receiver.

Xwire's confidence in the resulting audio fidelity, claimed to give 120dB dynamic range and a frequency

response from 10Hz to 20kHz, is shown by its suggestion of using the system for studio recording. The receiver four antennae, and immunity to interference is increased by a digital key embedded in the transmitted signal, allowing the receiver to ignore any incoming data that does not contain the key.

The latest enhancement is the addition of the capsule from the Audix OM6 dynamic microphone, regarded in many circles as a particularly impressive clean smooth capsule.

Xwire**489****Audix large capsule**

The Audix CX101 is a true large capsule cardioid condenser which uses a 1-inch gold vapour diaphragm and boasts a noise floor of 17dBA. The housing is brass finished in black satin with powering via phantom. The more expensive CX111 adds a -10dB pad and a bass roll-off switch but both mics come with a shock-mount stand adaptor and an aluminium carrying case. A 2-channel power supply is optional.

Also new from Audix is the TR40, described as a test and recording mic, which employs a 1/4-inch diameter pre-polarised condenser capsule with an omni pattern. Frequency response is claimed as 20Hz - 19kHz +/- 1dB. Price in the US is \$249 complete with carrying case and clip while stereo matched pairs are available for \$559.

Audix**485****Shure UC UK legal**

The UC series of radio microphone equipment is now available with frequencies legal in the UK. A UHF system, based on Shure's MARCAD diversity circuitry, the UC provides more than 100 selectable frequencies and enables 16 channels to be used simultaneously. For the handheld transmitters, there are four capsules available: SM58, Beta58, SM87A or Beta87A. In addition, a choice of four lavaliers and three headsets are provided. The UC1 bodypack and UC2 handheld transmitters have a combined on/off and mute switch, with the capability of external audio or RF muting.

Also provided are a three-segment battery fuel gauge and adjustable audio gain. The UC1 also has a 0dB/-20dB input attenuator. Battery life in both instances is quoted as eight hours.

Fitted with two five-segment RF LED strings, the EUC4 receiver also has seven-segment audio LED indicators, indicators for group and channels setting, plus low battery warning. Two-band equalisation and TTL logic terminal for external control are also provided.

Shure**480**

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64ch Minimum State of the art Radio Mic Systems

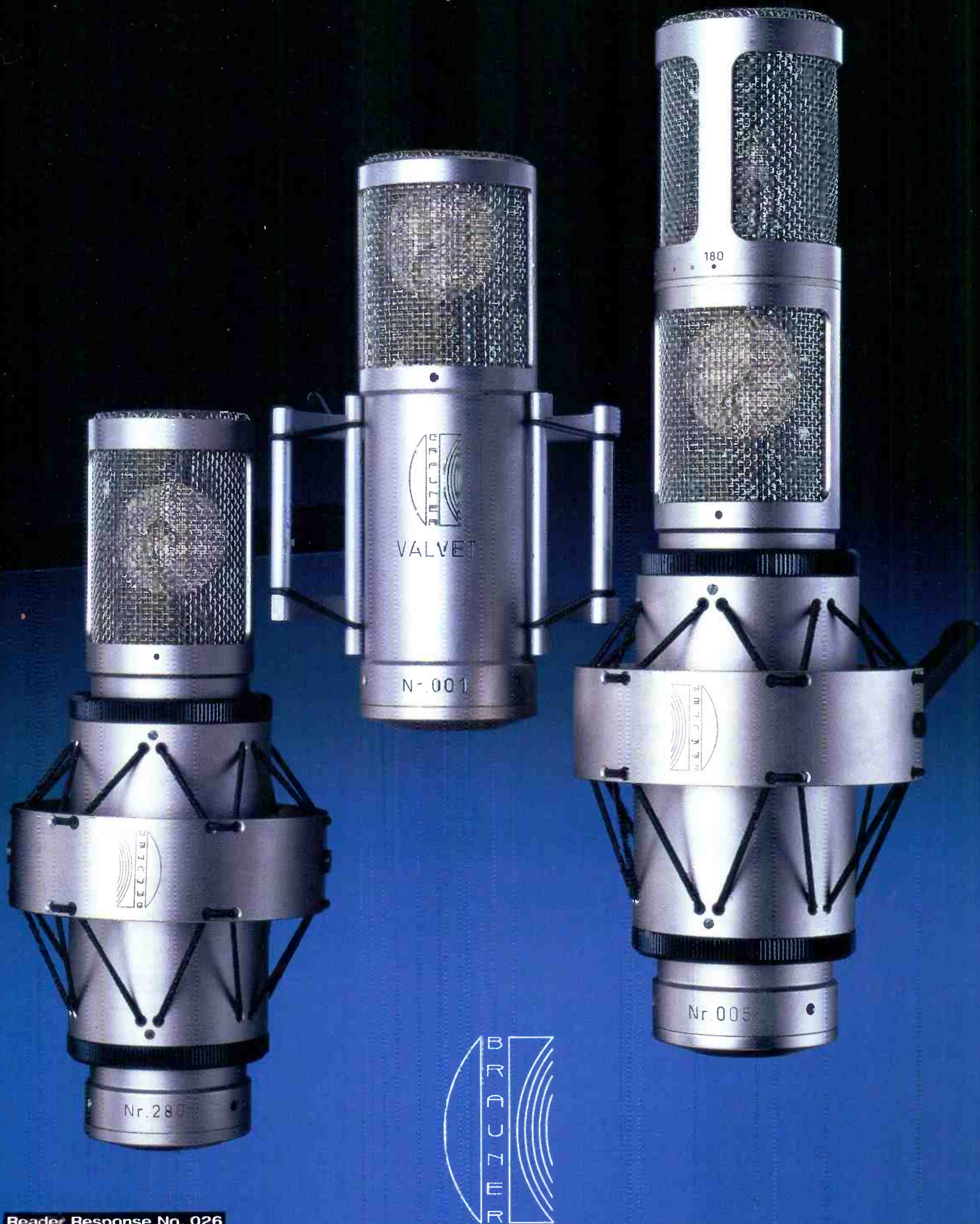
By Sony. From £750 per Channel

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Reader Response No. 025**FREE ENQUIRY SERVICE**

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Reader Response No. 026

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AT on the FreeWay

One of two new UHF radio microphone systems from A-T is the FreeWay, supplied as a complete system in lavalier, guitar, hand-held or headworn configuration with dynamic or condenser option in the headworn version. True diversity reception and InvisibleLink circuitry from the ATW900 series are included. The whole kit is packed in a rigid case. Also new in Europe following certification is the ATW1900 series, with a rackmount receiver and handheld or belt-pack transmitters. Thirteen frequencies are all useable simultaneously.

Audio-Technica 492

**Brauner launches two**

Brauner has introducing two new mics – VM1u and the Valvet. The former offers the same performance as the VM1, but is restricted to omni and cardioid patterns and has no -10dB switch; although the mic can be upgraded to full VM1 spec as a retrofit. The Valvet uses a Lundahl transformer and is a cardioid and omni valve mic and is cheaper than the upgradable VM1u.

Brauner 482

**Alesis/GT mics**

Alesis has introduced four large diaphragm studio condenser mics as part of its new GT Electronics division.

The AM51 and AM52 are Class A FETs and claim extremely low distortion and self-noise and use 3-micron, gold evaporated mylar diaphragms. Both have switchable -10dB pads and a switchable roll-off at 80Hz. The AM51 is a fixed cardioid while the AM52 offers cardioid, omni and fig-8 patterns.

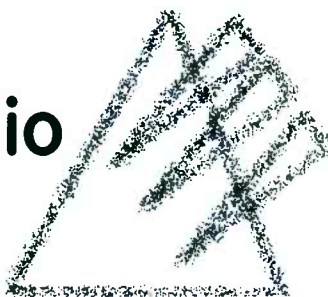
The AM61 and AM62 are valve condensers and use similar diaphragms which are precisely tensioned and together with the internal polarisation voltage regulator boast a matched response that is said to be typically within 1dB between mics. Both have custom-designed dual triode valves with the AM61 offering cardioid and the AM62 providing cardioid, hypercardioid, omni and fig-8 patterns. They come with a hard shell case, external PSUs, shock mount, hard mount and 6-pin cable.

Alesis 601

Talk to Total Audio

TEL 07000 45 6000

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64ch Minimum State of the art Radio Mic Systems
By Sony. From £750 per Channel

Reader Response No. 027

Big Shure condenser

The Shure KSM32 is a side-fire cardioid condenser using a Class A transformerless preamp and a 2.5-micron, gold-layer, low mass mylar diaphragm.

It comes with a 15dB pad, two-frequency switchable bass roll-off, an integrated three-stage pop protection grille and an internal shock mount.

Shure 600

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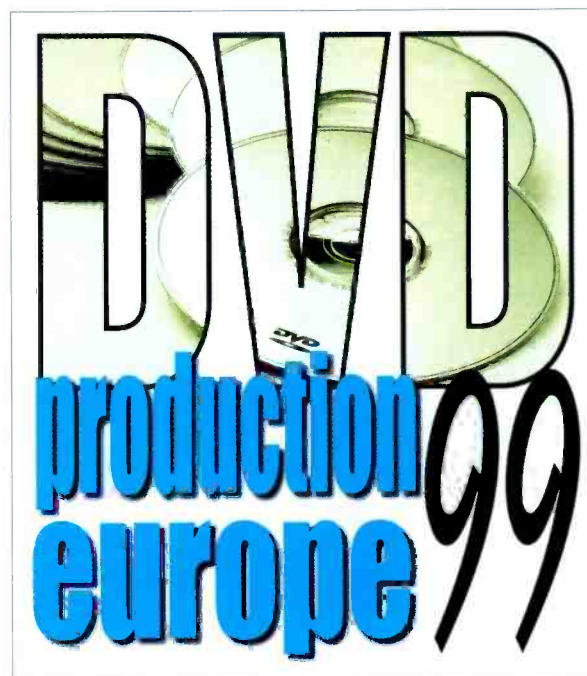
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Reader Response No. 028



Pearl 4-channel mic

Pearl's DS60 condenser offers stereo recording in different modes. It has two rectangular dual membrane capsules mounted one above the other and 90° apart. The mic is positioned differently for X-Y and MS recording and the mic pattern is chosen at the console. The preamp has four output channels, one for each cardioid membrane, connected via a 9-pin Lemo plug and four-way splitter terminating in XLRs. Each capsule provides 180-degree coincident stereo and the operator decides how to use the signals - cardioid, fig-8, omni, X-Y, MS or Blumlein.

Pearl 597

MBHO microphones resist a rumble

Notable inclusions in the MBHO mic range include the MBC608 switch selectable polar pattern large double diaphragm condenser. Patterns are cardioid, omni and fig-8. The suspension is said to be extremely resistant to external rumble.

Much more diminutive in size is the MBC440 series of small condensers, seen here. These units use a transformer based design.

Another feature is automatic current switching which renders the mic independent of operating voltage. A high pass filter and 10dB pad are available as options.

Sixpac 598

**Earthworks makes live condenser**

Earthworks SR71 is a cardioid condenser designed for live sound use. It is said to combine rugged construction with natural on-axis sound and uncoloured off-axis rejection.

The unit has a quoted frequency response of 50Hz to beyond 20kHz ±2dB and the manufacturer says that 90° off-axis SR71 is flatter than many microphones on-axis.

In addition to a more natural sound, Earthworks says that this gives its design exceptional gain before feedback, as there are no peaks to encourage ringing.

There is a wide range of suggested applications for the SR71, including strings, brass, vocals and drums.

Earthworks 602

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condenser
microphone**

**with
phantom powering
48 V**



Large diameter capsule, switchable



Transformer output

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Roll - off for low frequency

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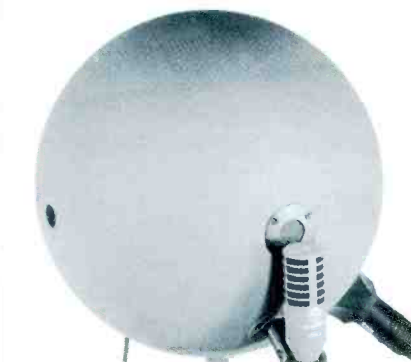
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Reader Response No. 029

**Schoeps goes into matrixed surround**

Schoeps has introduced the KFM360 surround microphone which consists of a sphere into which two omni mics are flush mounted with a bidirectional mic also attached on each side.

As with MS dematrixing, on each side of the sphere a pair of virtual mics is obtained by the addition and subtraction of the signals and these virtual mics are symmetrical to the front and rear with polar pattern adjustable from omni to fig-8. Centre channel information is obtained from a Michael Gerzon matrix.

The company has also previewed its VariMike 'variable mic' stereo system which has a patent pending. It consists of two DTM2 double transducer mics and a 24-bit DSP4 polar processor. In three variable frequency bands, this permits the polar patterns to be adjusted independently from each other in 12 steps from omni to fig-8.

Aside from frequency response, a polar pattern's frequency dependence is a major contributor to a mic's sound. The VariMike is said to be able to simulate a variety of mics very closely but it can also be adjusted to match the characteristics of a room.

The DSP4 box has analogue and digital I-Os and permits postproduction adjustment of the four recorded mic signals.

Schoeps 597

FREE ENQUIRY SERVICE

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DACS

FwS is a new range of three analogue effects based on ring modulation and aimed at DJs or studios who want to break new ground sonically. MODual8 outputs the sum and difference of two inputs. Harmonically related frequencies produce smooth, lush sounds, while unrelated signals produce spikier, more complex sounds. According to the manufacturer, small changes to the input signals can produce delicate shimmering colours or wildly diverging effects with fine-tune control over the results. CoOSCil includes a five-band oscillator, which ranges upwards from a subsonic .2Hz, while the FREQue is said to add a fixed frequency to all spectral components.

DACS 497

Sabine digital Graphi-Q

Sabine's Graphi-Q combines 31-band digital graphic EQ with 6dB and 12dB ranges and high and low cut filters; FBX feedback extermination with 12 filters and automatic Turbo setup mode; a fully featured compressor-limiter; and 1 second digital delay adjustable in 20ms increments. Operation is via traditional analogue faders and pots although all operation is digital. Running the device from a PC allows viewing and editing of frequency response curves and filters, the swapping of FBX filters to parametric, fine adjustment to EQ filter widths and attack, release and knee of the compressor; and unlimited storage of presets. PC control also allows eight Graphi-Qs to be run simultaneously.

Sabine 498



Drawmer digital DC Line

Drawmer has introduced digital products for 24/96 processing and analogue-digital conversion. Three products will offer 'refined analogue' sound quality to TDIF, ADAT, SPDIF and AES-EBU interfaces plus a host features.

The DC2476 Digital Mastering Processor has 24/96 inputs and outputs and the inclusion of S-RAM card slot allows settings and parameter to be memorised and recalled on any Drawmer DC2476 or Drawmer DC2486 units.

DC2486 TwinScreen Processor is a digital mastering 2U-high processor with the additional features of twin mic preamps, frequency conscious noise gating and more extensive metering than the

DC2476. Individual screens and operating controls for each channel allows simultaneous access and display of parameters. An S-RAM card slot is included.

The DC2496 is a super high resolution A-D convertor with an additional 20/16-bit 'Intelligent Backup' output for creating a simultaneous back up copy at 48/44.1kHz, a full in-out TDIF/ADAT/SPDIF/AES-EBU bay for transferring between two different formats; 'Multiple Converter Technology' for 130dB dynamic range; four different programmable limiters; and the ability to convert a 96/88.2kHz DVD recording down to 24/44.1kHz.

Drawmer 495

Alesis effects

Heralded as Alesis' flagship processor, the Q20 20-bit master effects stereo unit combines ADAT and SPDIF digital interfaces, XLR and jack analogue I-Os and an integral PSU.

Signal flow can be designed by

the user using an LCD with 'virtual' patch cables connecting from more than 50 effects types for each of the eight available blocks.

There are 300 programs in the Q20, 100 of which are factory presets while the rest are available for user storage.

Alesis 496

More Meeks

JoeMeek's SC4 is an M&S compressor, with a width control and claims absolute image accuracy. The unit has 24-bit 'any rate' convertors that can run independently.

The upgraded VC1 transformer mic preamp, mono photo electric compressor and enhancer chan-

nel is the third generation of the processor and has many extra features, for the same price - larger meter, phase reverse, smoother sounding enhancer - and now has the same compressor slope settings as its big brother, the SC2, plus a more 'chunky' looking front panel.

JoeMeek 592

BSS launches Opal graphic

BSS has added a graphic equaliser to its Opal series. The FCS966 is based on constant Q technology which maintains filter width regardless of fader gain setting. Separate HF and LF contours filters are provided along with a sweepable 18dB/octave high pass filter.

Output level is monitored by LED meter and a clip warning LED. I-Os are electronically balanced with transformers an option.

BSS 493

Audio Design hits brick wall

First developed for Carlton TV in the UK, DBL-1 is a digital broadcast transmission limiter, described as the ultimate brick wall level controller.

Also new from Audio Design is the DMM1 Fadassential, a four-channel digital fade and mix box. It provides the postproduction engineer with sample rate conversion, audio delay relative to picture, gain, phase inversion I-O channel reassignment and MS encoding/decoding.

It can also generate broadcast standard line up tones, noise shape the output and also distribute AES-EBU or SPDIF via the main mix output and four channel auxes.

A new EuroRack system has full power supply redundancy and accommodates up to four plug in modules, providing eight channels of A-D, D-A or sample rate conversion.

Audio Design 494

Q. How does our NEW COMPRESSOR work?

The stereo audio signal input is encoded as a 'sum' channel (left plus right) and a 'difference' channel (left minus right). Both channels are compressed. After compression, the difference channel goes through a variable gain amplifier, controlled by the 'WIDTH' control. The sum and difference channels are then decoded back into stereo left and right. The effect of 'WIDTH' is that the stereo signal is variable from mono, to enhanced stereo. Compression in the sum and difference domain guarantees perfect image integrity under all conditions of compression, while retaining the original JOEMEERK sound. The resulting compression is an image perfect version of the awesome and unique JOEMEERK sound:- Lost in the 1960s and recreated in the 90s.

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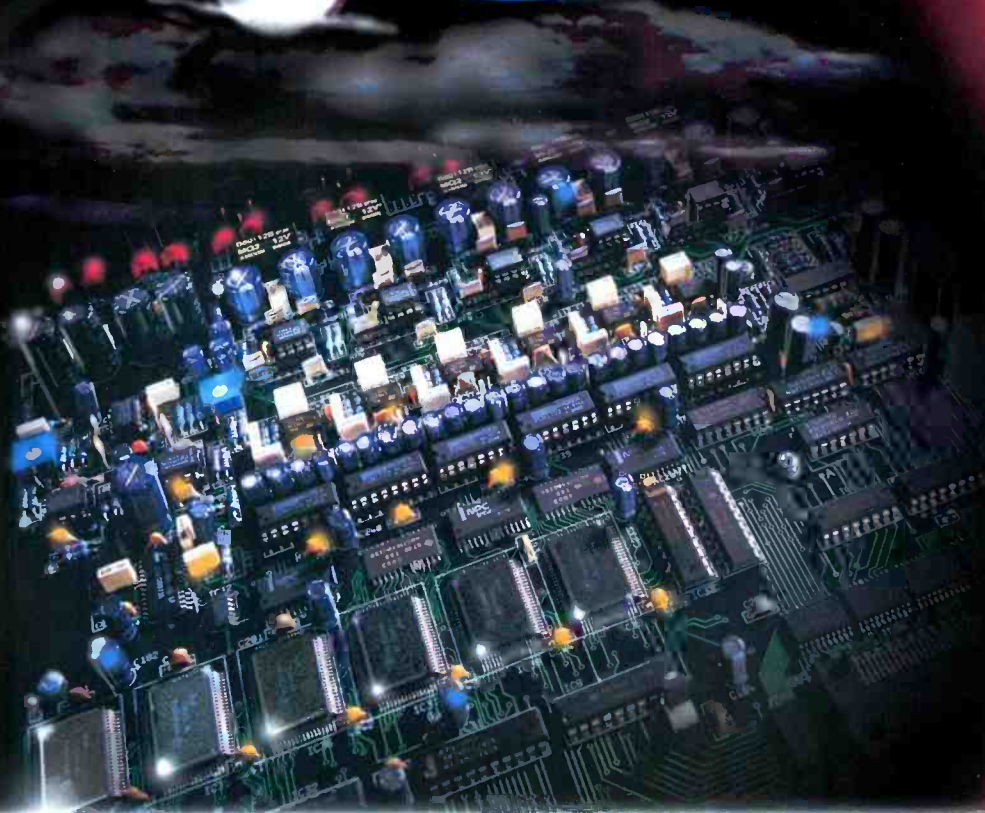


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Reader Response No. 033



Sonifex reds

Sonifex has released a range of budget Redbox interconnection units.

The range includes the RBDA6 6-way stereo, 2 x 6-way mono or 1 x 12-way distribution amp; the RBMA2 dual mic preamp; RBSM2 dual stereo to mono converter; RBBL2 balanced to unbalanced bidirectional converter; and the RBSL2 twin mono or stereo limiter.

All units are housed in aluminium boxes which can be screw mounted to any surface and can be powered by 115V, 60Hz or 230V, 50Hz.

Sonifex

503

ART offers three new outboard devices

There are three new outboard units from ART: a Tube Channel; Dual Tube EQ and the DMV-Pro dual multi-verb unit.

The Tube Channel is a combined mic pre-amp, optical compressor and four channel, valve-based parametric equaliser. XLR and 1/4-inch jack I-O are fitted, along with loop points between each section to allow them to be used separately or for other devices to be inserted into the chain.

Compressor and EQ sections are fitted with detented pots and bypass switches. Metering includes preamp drive and gain reduction LED arrays, as well as a backlit output level VU.

The Dual Tube EQ can be used in dual four-band or single channel eight-band mode. According to ART the frequencies and Q parameters of the device were selected by a number of top recording engineers using a range of musical instruments for reference. The high and low shelving filters are each switchable between two frequencies and the two mid range controls can both be switched between two frequency sweep ranges.

DMV-Pro contains two 24-bit digital engines, with independent I-O for each one. As a result, the devices can be used independently or in tandem. Each engine is capable of producing 72 effects in total and they can produce up to three effects simultaneously, chained in any order.

ART

504

Symetrix 300s are half-rack

Symetrix has the 300 Series range of half rack-width boxes for the contractor and broadcast industries.

These include the 301 mono compressor-limiter, the 302 dual mic preamp update on the SX202, and the 303 stereo level matching bidirectional interface amp. Other units are the 304 2-in, 4-out headphones amp, 305 1-in, 4-out distribution amp with individual trim pots and the 307 dual isolation transformer.

Traditional 1U rack-

mounts from the company include the 581E distribution amp and the 565E dual compressor-limiter-expander.

The former is a 4-in, 16 out device which accepts stereo audio feeds and other configurations via simple rewiring. The 565E offers two channels of simultaneous in-line processing with proprietary Dynamics Squared circuitry, claimed to reduce distortion when automatic gain reduction is at a maximum.

Symetrix

501

Mastering bass limiter

The DBL 10 dynamic bass limiter is a 2-channel bass filter that limits excessive signals in the 0-800Hz region to protect cutter heads and converters from overload. It is designed predominantly for disc cutting and mastering. At normal bass levels the filter is said to be completely transparent and bass limitation only occurs if peaks exceed the preset level. The rackmountable unit has indicators and selectors for sensitivity, attack and release on each channel.

Etec

505

A Dual Classic TUBE-TECH CL 2A



The TUBE-TECH CL 2A is a dual opto compressor with the same features as two of the well renowned TUBE-TECH CL 1B, but only taking up two units of rackspace.

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Reader Response No. 034

FREE ENQUIRY SERVICE

Audient graphic equaliser holds Q surprises

Audient's new pair of graphic equalisers, the ASP131 and ASP231, bring a couple of fresh ideas to the familiar face of the graphic. One is obvious on the front panel: a Tilt control that effectively tips the set curve top-up or bottom-up to provide overall biasing of the basic set-up. The other is revealed by the Mode button, switching between a normal operation with reciprocal constant-Q filters, and a Narrow mode with an unexpected twist. Here the Cut section of each slider works as a narrow notch while the Boost part retains the wider Q of the normal setting, allowing a useful combination of gentle boost curves and tight problem-solving notches.

Add a variable high pass filter and circuit topologies designed for high audio quality, plus high current output drivers for a package that will appeal to several markets. Some of those will also be pleased by the backlit centre-frequency display together with illumination in all the switches.

Audient

506

LA Audio makes Millennium additions

New addition to the LA Audio Millennium series of processors is the DAX2 stereo 24-bit A-DC. Each channel has a level trim and 16-segment LED bargraphs monitor the input signal with peak or vu ballistics. The digital output section has front panel selection of AES-EBU or SPDIF and 44.1 or 48kHz sample rate. A dither switch is provided and the device can be locked to external word clock with LED status indication.



Valves have been introduced to the range with the TCX2 dual compressor which can be stereo linked. It features active valve stages for the input and output gain make-up, the former having a 40dB range with two LEDs indicating the amount of valve effect

being added.

The compressor has variable threshold and ratio and variable rate auto-sensing attack and release. Matters are concluded with LED metering, 20dB output valve gain amp and bypass.

LA Audio

507

...and Millennia Media makes Twin Topology

Millennia Media has launched two 'Twin Topology' products as a merging of Class A valve and Class A solid state circuitry in the NSEQ2 stereo EQ and TCL2 stereo compressor-limiter.

In both cases a front panel switch selects either of the two circuitries. These topologies are entirely transformerless, high voltage and described as minimalist.

The NSEQ2 has only one active stage in the signal path compared to other designs that can combine from three to seven amp stages. The compressor also employs only



one active stage. The solid state aspects of both units consists of discrete JFET amps and the company will also be providing these JFET amps as the next generation of 990 Jensen and 2520 API plug-in compatible modules.

Twin Topology products have new cosmetics which includes illuminated pushbuttons, hand-machined aluminium knobs, and extruded and radiused engraved face plate.

Millennia Media

508



Zoom in & out of your sound...

Reshape your sound with the ingenious Transient Designer. You will never have heard anything like this before. A 4 channel dynamic-effect processor which

shapes the attack & sustain envelope to give level independent sound processing. This amazing concept product may change the way you record forever...

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Summit and Rupert Neve collaborate

The result of much speculation in the last year, Summit Audio finally showed the fruits of its collaboration with Rupert Neve the designer at the San Francisco AES. The MPE200 dual channel mic preamp and 4-band EQ is the first in the new Element 78 product line and is digitally controlled with the implementation of storage and reset from 25 memory locations with MIDI control.

Each channel consists of a mic preamp with high and low pass filters sections and fully parametric 4-band EQ but not valves.



The MPE200 has Class A discrete transistor analogue amps with coarse and fine gain controls for each section, phase invert, instrumentation-type input amps, large dynamic range, floating and

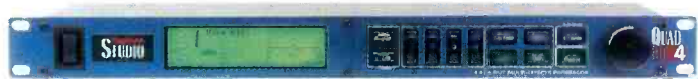
balanced output transformers, and traditional analogue style controls with numeric readouts. Virtually no high order harmonics are claimed.

Summit Audio 509

TC M3000

TC Electronics has released the M3000 studio effects processor with several new algorithms including 'advanced' reverbs. It is said to sit directly beneath the flagship M5000 processor. The dual engine true stereo unit features 24-bit converters and covers reverb, delay, chorus, flange, tremolo, dynamic EQ, pitch, phasing, soft compression, gating, expansion and limiting. Presets can be stored in internal RAM or external PCMCIA cards. Connectors cover AES-EBU, SPDIF, TDIF, ADAT, MIDI and analogue I-O plus a pedal input. Also new are the Finalizer Express cost-effective version of the Finalizer Plus mastering processor and the MegaVerb TDM plug-in which is based on M5000 core technology.

TC Electronics 512



DigiTech effects powerhouse

DigiTech, an early enthusiast for multi-effects processors, has added the Quad 4 to the Studio range. Effectively four processors in one, it has four inputs, four outputs and flexible internal patching arrangements to suit a variety of applications. One

hundred factory presets show off the S-DISC II processing, with a library including compression, rotary speaker simulation, spring reverb, delay up to 5.5 seconds, vocoder, sampling, time warp, envelope filter and many more.

DigiTech Studio 510

TL Classics now

TL Audio, always at the forefront of the valve revival, has launched its Valve Classics series with the first model, the C-1 stereo valve compressor.

The successful original is here upgraded with military spec GE valves, gold plated ceramic valve bases, backlit circular vu meters and new cosmetics based around a deep blue 6mm aluminium front panel.

TL Audio 511

Flamingo pre

Cranesong's Flamingo is a 2-channel discrete Class A preamp with switch selectable 'vintage' and 'iron' sounds. Gain is adjustable in 6dB increments up to 66dB with the help of a fine trim pot. A 22 LED vu meter monitors input.

Cranesong 499



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spl
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8-channel dynamics

PreSonus' ACP88 offers eight channels of dynamic processing each comprising a compressor and a gate.

The processors have the full set of controls, complete with a soft knee switch and an Auto setting for the compressor, and flexible linking arrangements allow any number of the channels to operate together. Side chain access is provided on both compressor and gate for frequency-dependent processing.

The ACP22 looks very much like two channels lifted from the 88 in a 1U box, but adds a switchable fixed-frequency low pass filter to the gate, helping with drum gating without tying up external EQ.

PreSonus 513

CEDAR upgrades

Two recently-introduced CEDAR restoration products are already the subjects of upgrades. The DHX is the Series X dehisser, launched last year, and the new version 1.02 improves the algorithm's ability to deal with certain types of dance and rock music, and has been found to achieve better results with most types of material. The software Debuzz processor for the CEDAR for Windows system is even more recent, but has also been upgraded to version 2, which not only improves the efficacy of the process but also simplifies its operation by reducing the number of controls. Existing owners of Debuzz are eligible for a free upgrade, as are DHX owners, although upgrading the hardware box requires return to CEDAR or the local dealer.

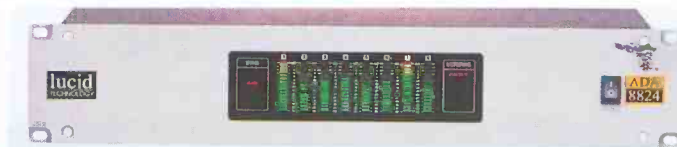
CEDAR Audio 514

Weiss EQ1-DS Mk2

Version 4.0 software for the Weiss EQ1-DS double sampling equaliser runs on a new SHARC DSP board which can replace the original DSP32C board. Mark 2 features include much higher parameter resolution: the centre frequency, boost/cut and Q now have 128-step resolution.

The centre frequency parameter is stepped in half-tone steps and includes 50/60Hz frequencies with their harmonics for hum suppression. The boost/cut ranges from +18dB down to -39dB with 0.1dB resolution around 0, and the Q factor can be varied from 0.2 to a needle-sharp 650 notch.

Weiss 502



Lucid offers 24/96 convertors

The AD9624 A-DC and DA9624 D-AC from Lucid Technology are 2-channel 24-bit, 96kHz convertors at \$899 and \$749 US respectively.

The A-DC accepts analogue inputs and digital outputs flow

simultaneously through AES-3, SPDIF and TOS-LINK with 16-bit noise shaping on the first two. The D-AC handles the reciprocal process, with inputs in all three digital formats.

Lucid Technology 516



Frontier Design's been Tangoed

Frontier Design has broadened its range of PC audio ancillaries with the Tango, a new A-D front end and analogue output for any ADAT lightpipe compatible equipment and particularly PC audio cards such as Frontier's own WaveCenter, Korg's 1212, the Sonorus Studi/o or the Alesis PCR.

The 1U rackmount box expands on Frontier's Zulu box by having eight pro level balanced outputs and handling up to eight inputs. The input side is modular,

so that a 0-input Tango for output only can be user-upgraded to the full eight if required.

Convertors in and out are 20-bit and the only connection to the computer is an optical cable which can be up to 10m long.

Tango is self-powered, ensuring complete isolation from the PC. Eight front-panel 3-LED meters can show input or output levels, and additional connections include an ADAT thru port and word clock in/out.

Frontier Designs 517



Tube Tech shows dual 'CL1B'

Tube Tech has combined two mono CL1B compressors into a single unit to give the dual channel CL2A opto compressor. Enhancements over the original unit include 5kOhms input impedance and the two channels can be linked for stereo operation and multiple units can be side-

chain linked.

Features include variable or fixed attack and release times, a valve push-pull amp, clickless relays for switching the compressors in and out of circuit, and balanced floating inputs and outputs.

Lydkraft 518

FEL preamp

FEL has released a low noise mic preamp that is smaller than an XLR plug, boosts by 20dB and is intended for location recorders.

The mono version is built into an XLR and terminates in a

3.5mm plug to replace the mic lead while the stereo version is cable mounted and terminated with a 3.5mm plug and socket for use with semipro stereo mics.

The amp runs on the power available on the mic socket on the majority of portable recorders.

FEL 515

PreSonus eight

Joining the throng of 8-channel hardware to team up with DAWs and MDMs are new units from PreSonus.

The M80 contains eight fully-featured microphone preamps with the added bonus of an on-board stereo mixer, fed via a pan pot on each channel. Among the expected phantom, pad, phase and HPF switches is a feature called IDSS, adding variable harmonic distortion from the unit's commendably low 0.001% to a maximum of 0.5%.

Although it uses FETs, this proprietary circuit is intended to emulate tube colouration and analogue tape saturation. Multiple M80s can be bussed together, and a balanced insert point is provided on each channel.

PreSonus 519



Z's mastering processor

The Z-Systems Z-Q6 6-channel digital mastering processor provides 6-channels of 6-band parametric EQ, level control, dither and digital source selection.

The EQ algorithms are the same as those found in the 2-channel Z-Q1 stereo digital parametric.

Additionally the unit has three AES-EBU and three SPDIF I-Os. For complicated processing the device can be put into a 'super' 2-channel mode for 18-band stereo operation.

The device has 24-bit resolution and 88.2/96kHz operation as an option.

Z-Systems 520

Small hooters

Designed by Ted Fletcher of JoeMeek processor fame, the Hooter Sound B1 is a single channel mic preamp with phantom power, a volume compressor, peak limiter and variable noise gate for £137 (+VAT) UK.

Compression can be bypassed and ratio is variable up to 8:1 and includes automatic gain compensation, while the gate has variable threshold. LEDs indicate compression, limiting and gate status and line level output is tracked on a LED peak meter.

Hooter Sound 500



C-1 compressor

C-1
stereo valve compressor
with mic pre-amps

£1299
ex vat £1526 inc

TL Audio products have been part of some of the most important records of recent years, and none more so than the C-1 stereo valve compressor. So when Portishead - who are without doubt one of the most influential and ground breaking acts of the 90's - came to choose some high end valve outboard to use on their latest 'PNYC' album, the decision was easy:



"There seems to be a real buzz about TL Audio equipment at the moment, and I've encountered so many engineers and producers using TL Audio products that it just seemed to be the obvious choice. The C-1 and EQ-2 were used to process the string and horn sections that feature heavily on the album - and they sounded great. The units just seem to add something special to the sound, even before you start to make any adjustments!"

Adrian Utley - Portishead
(Guitarist, Writer, Co-Producer)

So if you've always wanted to own a Classic, speak to your nearest TL Audio dealer today!

- ⊗ 2 channels of soft knee valve compression
- ⊗ Fully variable control of input gain, threshold, ratio, attack, release and gain make-up
- ⊗ High quality on-board mic pre-amps
- ⊗ Both balanced XLR and unbalanced jack connections for easy patching
- ⊗ Stereo front panel instrument inputs
- ⊗ Dual mono/stereo linked modes
- ⊗ Backlit VU meters allow monitoring of either output level or gain reduction
- ⊗ Unique non-VCA design for maximum transparency
- ⊗ Military spec General Electric valve stages run from stabilised 250v DC power supply
- ⊗ Frequency response 5Hz to 70kHz

adrian utley portishead



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Reader Response No. 036

More H Series

Incorporating valve amplification, the Demeter H Series parametric EQ incorporates a solid state parametric circuit that controls the gain of the tube at selected frequencies. It features 3-band stereo operation linkable to 6 band mono, continuously variable frequency, Q, and up to 15dB of boost or cut, input bypass and gain control with overload indicator. TRS and XLR connectors are provided for I-Os. As with all H series units the power supply is fully regulated. Suggested retail price is \$1295 US. The H series Tube Direct Box/Line Driver can be used as both line level direct instrument input or as a line driver to add warmth to line level digital interfaces. Features include 27MΩ input impedance, two independent channels with separate 1/4 inch inputs, ground lift, phase invert, unity gain (+6dB with balanced out) and a tube driven boost mode with 20dB of boost controlled by a continuously variable volume control and a unity gain low impedance tube driven output to drive external instrument amplifiers or effects. Suggested retail price is \$899 US.

Demeter

521



Sony gets real with reverb

Sony's DRES777 24-bit sampling reverberator is claimed to generate reverberation based on actual acoustic environments. The box is said to be able to sample and recreate reverb from plates, for example, which can then be optimised for low noise.

It offers surround or 96kHz expansion capability although out

of the box it supports mono in, stereo out at 48kHz. The DABKS703 expansion DSP board permits the selection of 2-in, 2-out stereo at up to 96kHz or 4-channel surround.

Expected to start shipping in the spring of next year prices will start at \$5,000 US.

Sony

522

Apogee Solution Series debuts

Apogee has previewed the project studio targeted Solution Series, with the Rosetta AD as the first product in the line.

Rosetta AD has analogue inputs, along with AES-EBU, ADAT, TDIF and SPDIF interfaces with bargraph meters and large 'over' LEDs. Soft Limit is included, together with UV22HR, a high resolution version of UV22, which is used to reduce word lengths.

Shipping is expected before the end of the year.

Apogee Electronics' DA2000 is a 20-bit D-AC which features six digital inputs — four AES-EBU and two SPDIF — with direct front panel selection, signal present indicators and input sampling rates of 32, 44.1 and 48kHz. It also includes the company's UV22 super CD encoding system.

Apogee Electronics

523

Three DigiTech fx with valve preamp option

A dual-engine multi-effects processor, the S200 has a new graphics display and icon-based navigation intended to make program creation simple. A similar range of patches to the company's Quad 4 is on offer but the US price is \$340 retail.

Aimed primarily at musicians are the Vocalist Access five-part harmony processor and the BP preempt/processor for bass guitarists. Vocalist Access has 50 preset harmony and doubling programs.

It is designed to be used in conjunction with a MIDI keyboard or sequence and includes a Studio Ware control panel for CakeWalk 6.0 Pro Audio. BP8 includes an analogue compressor, 4-band EQ with sweep mids and an adjustable notch filter.

Effects provided include auto-wah, chorus, detune, flanger, noise gate, phaser, pitch shifting, reverb and tremelo. A choice of valve 12AX7 or solid state preamps is offered.

DigiTech Studio

524



6-24 Southgate Road
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First Among EQualisers



The LA Audio digEQ combines the fidelity of 24bit audio with a level of ergonomic access and control, superior to any programmable processors currently available; providing a simple to use, total processing solution for stand-alone or networked sound re-inforcement applications.

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- 24 bit DSP; high-quality proprietary algorithms; optional digital I/O, digital delay & RTA plug-in cards
- Optional wireless remote control with on-board identical control system. Slave units allow powerful multi-channel configurations from single master unit



"I've been using LA Audio EQs for many years. I think the digEQ is a stunning product, it's so easy to use and it provides a perfect partner to the V-DOSC PA System"

Paul Nicholson
(MD V-DOSC Rentals UK)

Euphonix multitrack recorder

Euphonix unveiled the R1 multitrack digital recorder at the last AES convention. The recorder is expected to start shipping in the first quarter of next year for around \$25,000 US for a 24-track system with MADI interface and remote control.

The system claims 24-bit con-

version and storage combined with 40-point floating point SHARC DSP optimised for 9Gb hard disks. Features include cut and paste editing, nondestructive recording, a modular, scaleable and open architecture and FireWire and MADI interfaces.

Euphonix 525



Tascam cassette deck and CD-R

Tascam has announced the 130 cassette deck offering 3-heads, 10% pitch control, Dolby B/C and HX Pro in a 3U-high rackmount. Connectors are unbalanced and the machine features automatic tape selection, auto monitoring and timer record and playback.

Tascam is to introduce the CD-RW5000 Compact Disc Recorder with the ability to read and write

to CD-R, CD-RW, CD-R-DA and CD-RW-DA. Other features include XLR and phono connectors, an AES-EBU digital input, SPDIF coaxial and optical digital I-O, a Sync Start function, auto or manual track increment capability, a sample-rate convertor, an erase function and parallel control I-O capability.

Tascam 526



Reporter's portable

Flashman is a simple-to-use portable digital MPEG and linear audio recorder for reporters. The solid-state-recorder uses CompactFlash Cards. A 48Mb card gives more than 1.5 hours of mono audio in MP3 format. 96Mb cards have been announced for the beginning of 1999 and a continuous increase of this media is expected. Cards can be removed and inserted in a notebook or PC for instant editing and transmission.

The recording formats cover MPEG L2 and L3 as well as linear. Flashman provides recording and playback in stereo and mono, allows marks to be set during recording and playback and has an additional serial interface for transfer to PC. Battery life is more than five hours.

CCS 594

Quantegy GP9

Quantegy has introduced GP9 Grand Master Platinum analogue mastering in response to requests for tape that is 'fatter, hotter and clearer' according to the company. GP9 boasts extended high and low frequency response, higher pigment to binder ratio, improved calendaring and optimal flexibility. The metal reel that houses the tape has thicker flanges, a solid back flange and is coloured red. The tape is available in TapeCare box or standard Tyvek.

The company has also released recordable MiniDisc media and claims its CD-R media is the most archivably stable available due to its commitment to using gold.

Quantegy 528

Tascam

Designed to fit tight spaces and budgets, the CD-A500 is a 3U rack-mounting CD player and auto-reverse cassette player. The CD player has shuffle/programme play modes and a three-way repeat function, while the cassette transport has automatic programme search, pitch control and CD sync.

Tascam 529

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Otari offers short-run copying for CD

Otari's CDP50 CD duplicator is aimed at short runs and requires no external PC and can continuously copy 50 CDs using pre-installed screen operated application software.

In auto mode, master CDs and blanks can be mixed in the copy stack and the machine automatically detects prerecorded material and will continue to copy blanks until it detects a new master allowing multiple small runs to be copied in one pass. Features include write verification, error disc detection and a separate reject disc magazine.

The machine supports CD-DA, CD-I, CD-Video, CD-ROM, CD-ROM XA, CD Plus, enhanced CD and Photo CD.

Expanding on the standalone Lightwinder LW10 system for PA use, the LW50 fibre optic wiring system is intended for uses where setups have to be changed rapidly and stored. It also supports video camera signals.

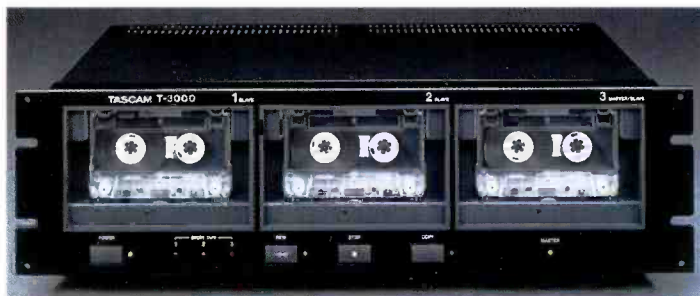
Otari 530

Fostex DAT upgrades

Fostex has announced that its D15 DAT machine and Version 1.12 software is now compatible with Avid systems to give an inexpensive way to put an EDL call sheet of cues and cuts through the machine and batch digitise the data without the use of a 4-head postproduction timecode machine.

The company has also upgraded the software of the PD4 portable DAT machine to Version 2.30 at no cost to the owner. Off-tape confidence monitoring at the mixer is now possible and users have more user bit functions to work with plus additional jam sync capabilities.

Fostex 531



Dupe CD and cassette

Tascam is catering for duplication with a new low-priced CD duplicator, the CD-D4000 and the three-bay T-3000 4x speed cassette duplicator, a cascable 4-track copier.

Tascam 596



Philips £400 dual CD recorder

With a UK price of less than £400 (inc VAT), the Philips CDR765 dual-deck audio CD recorder has a fully speeded CD-R/CD-RW recorder-player transport and a CD/CD-R/CD-RW player transport in one unit allowing mastering and double-speed duplication.

Features include 2-disc simultaneous playback and 2-disc ran-

dom playback, direct digital line recording, separate outputs for CD-R and CD decks, analogue and digital inputs, automatic or manual track numbering, CD synchronised auto start from all digital sources, 1-bit A-DC, and a remote control.

Record companies have already expressed fears over piracy issues.

SRTL 532



TDK gears up for recordable DVD

TDK is ready for the introduction of recordable DVD with three recordable discs. DVD-R is a WORM disc with a potential capacity of 3.95Gb, functioning much like a conventional CD-R but with a much finer tracking groove and more accurate laser mechanism requirements. The minimum pit size is reduced to 0.44µm with a track width of 0.8µm, both 50 to 60% smaller than on a standard CD.

DVD-RAM is the rewritable equivalent for high capacity data

storage, with two versions offering single-sided 2.6Gb and double-sided 5.2Gb capacities. These use the 'land-and-groove' method of recording, where data is recorded on both the troughs and the ridges of the tracking groove.

At this stage DVD-RAM discs will be housed in a cartridge similar to that of a conventional MO disc as a protective measure, although both types are eventually expected to operate bare like current CD-Rs.

TDK 533



MediaFORM dupes all

MediaFORM has covered both ends of the small-run CD duplication market by simultaneously reducing the price of its CD-2701, a spindle-based 50-capacity automated device, and launching a new 3-CD duplicator, the CD2CD.

In its basic form this is a stand-alone copier capable of producing 3 CDs simultaneously without the need for a PC, and a four-bay cabinet can be added to increase the slave capacity to seven. PC connectivity also allows control from mastering software, and the Easi-DAT and Easi-Audio options allow external audio to be imported. A unique feature is Track Extraction, which allows tracks from various discs to be mixed and recorded.

MediaFORM 534

Studer V-Twenty4

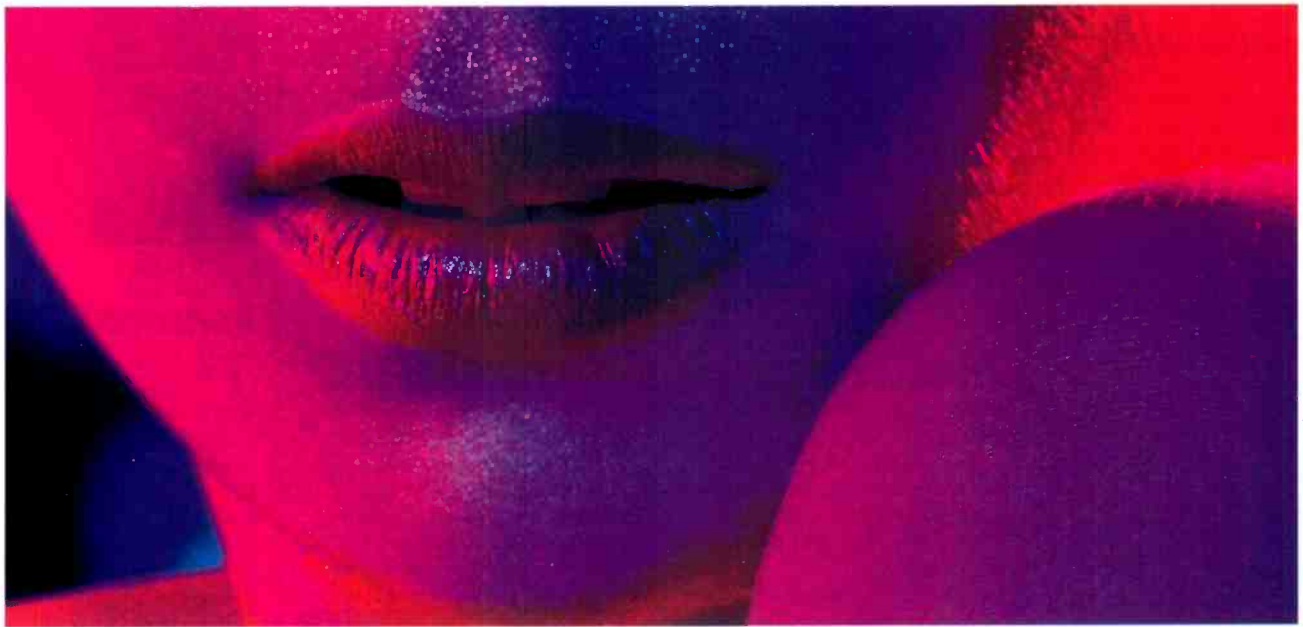
Studer has packaged together three of its V-Eight ADAT Type II machines into a 24-track system run by the Cockpit remote control and branded it as the V-Twenty4.

New C4AD plug-in cards for the D19m modular audio convertor system allow it to operate at 24-bit A-D with the C4DA returning the same bit length signal back to analogue. The new remote pre-amp for the D19m rack allows 1dB gain adjustment with phantom power, filter, mute and limiter under serial control.

Meanwhile, Version 1.1 software for the D950 desk adds VCA-style control grouping of all functions, dithering capability on any selected output, full copying of module parameters to other modules and the saving and loading of multiple channel strips.

Studer 535

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Legendary Sound to Make Your Dreams...



The Studer V-Eight is an 8 channel 20 bit digital recorder based on the ADAT™ type II format, using S-VHS cassettes. The V-Eight is **100% compatible to all current ADAT formats** with over 100'000 units sold. The professional design and reliability will give you a cost effective, faithful workhorse for all professional audio recording applications. The V-Eight features a **professional S-VHS Tape Drive** for extremely fast

and gentle tape handling which leads to substantial time savings. The V-Eight also has the convenience of an **integrated TC generator and chase synchroniser**. Unique features are: **24 bit Studer converters** based on the legendary D-827 DASH recorder technology, to improve the sound of your recordings and an **On-board 9 channel monitor mixer** to make live recordings without a mixing console. ■

STUDER
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Reader Response No. 039

Preformatted ADAT

Emtec has introduced a preformatted BASF ADAT Master tape which eliminates the real-time formatting process previously required prior to sessions. According to the company this accounts for some one million hours of studio time. The tape is available in 40 and 60-minute versions for Type I ADAT machines with a Type II 20-bit preformatted tape expected in early 1999.

Emtec 539



Neato Christmas time

Neato's established CD-R labelling system goes glossy for Christmas with new photo quality labels to complement the existing kit. The new pressure sensitive die-cut gloss labels are suitable for printing on virtually any laser or colour inkjet printer and can be designed with Neato's Media Face design software.

Neato 536



MediaForm CD printers

The MediaForm CDP-CP2 inkjet printer offers 1440 x 720 dpi printing and is compatible with Windows and Mac systems complete with templates for the most popular desktop publishing packages.

The Perfect Image CDP-TTI printer uses low cost thermal

transfer technology and will print a CD in 15 seconds. A ribbon saver feature extends ribbon life if printing does not occupy the full CD. Thermal transfer allows printing directly onto a standard CD-ROM surface without special printable surface CDs or adhesive labels.

Magellan Group 537

Reference cassette from BASF

The BASF Reference II Master audio cassette is described as a state of the art product in the chrome class with outstanding output in the high frequency range.

Output levels at low and high frequencies are around 3.5dB

above those of the IEC reference tape while overall dynamics are 7.5dB higher.

Other features include a high-precision shell with a separate sound head and an Anti Stick Slip Pad.

Emtec 538



Improved TDK CD

TDK has improved its professional CD recording media with the introduction of the CD-R Studio Reflex disc.

Suitable for high speed duplication the discs are optimised for improved performance at real-time recording speeds. Extremely low error rates are claimed along with virtual elimination of the digital noise caused by the 'pit jitter' of poorly recorded discs. The discs incorporate a tough ultra-pure resin coating that seals and protects them from excess heat and moisture resulting in a claimed life expectancy of more than 100 years.

Smaller batch test sizes are now used and the labelling and information card have been redesigned.

TDK 539

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Reader Response No. 042

Spoilt for choice with Tascam's digital range

Tascam's MD-801 R mkII MiniDisc machine is targeted at broadcast, DJs and sound contractors, and features a new rapid access drive, 20-bit converters both ends, sample rate conversion on the digital input and separate monitor and main outputs for ease of cueing. The CD-450 CD player has functions designed to integrate it into broadcast systems with a wealth of remote control options. Familiar ideas like Auto Cue and Auto Ready are joined by fader and event start, incremental play for programmed sequences, and an EOM (End of Message) function allowing the 450 to cue another machine when its current track finishes. The digital dubber line expands with the addition of the MMU-16 meter bridge, offering 16 channels of metering for either the MMR-8 recorder or the MMP-16 player.

Tascam 560

Marantz MD portable records and edits

PMD650 is a professional portable MiniDisc recorder with editing facilities. This includes a backup of the TOC written at the beginning of every recording, so that data can still be retrieved in the event of power failure.

An audio cache memory of up to two seconds can be used to overcome errors in manual recording but can also be used in conjunction with the level sync recording function. This automatically activates record when the level passes a pre-determined level. Automatic noise cancellation is a filter for minimising back-



ground noise when using a microphone. Dual recording modes allow 74 minutes stereo or 148 minutes mono recording.

The lightweight casing of the PMD650 is strengthened ABS with all audio connectors on metal brackets to prevent contact problems with the PCBs. I-Os include balanced XLR mic with

48V phantom power, plus digital I-O with sample rate convertor. A built-in loudspeaker and mic are provided.

Editing functions include divide, combine, move, erase and title. A backspace button jumps back five seconds while the machine is in play mode.

Marantz 551

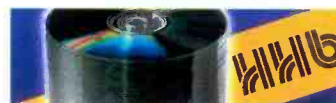
CD copying

Three new CD replication systems have been introduced by Microboards Technology. The biggest is an eight-bay replicator, the DSR 8800, with a 12x CD-ROM drive and seven CD-R drives. Up to three seven-drive slave units can be added, and there is a built-in upgrade for DVD duplication.

The DSR 1000 family ranges from a 1-1 copier to a 1-3 configu-

ration and supports CD-ROM, CD-DA, CD-I, Mixed Mode, Multisession and Video CD. Smallest of the new series is the CopyWriter A2D, a one-drive 8x read/4x write machine with an internal 2.1Gb hard drive. Unusually, this has built-in A-D conversion to allow audio in various formats to be imported to the system and PQed using an external Cue Sheet utility.

Microboards 552



HHB bulk CD-R

HHB Bulk CD-Rs are shrink wrapped in 100s and packed 600 to a box.

HHB's ADAT45 tape is now available as a boxed library cassette in 45 and 60 minute versions.

HHB 527

MASTER'S TOOLS



EQ1: Digital Parametric Equalizer (96kHz optional)

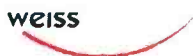
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Reader Response No. 043

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Reader Response No. 044



Quested debuts passive 3-way

Quested has launched the UD1 3-way passive monitor with dual proprietary 200mm bass driver, a 75mm mid-range and 28mm soft dome tweeter.

The speakers have their own integral stands with all drivers housed in individual chambers. The crossovers use polypropylene capacitors and air-cored inductors and triple gold-plated binding posts permit multi-amping.

The QSB118 18-inch sub-bass cabinet is designed to complement the HQ210 active system and is powered by an AP700 amp. The driver is double-cooled using a vented pole piece and an external radial chassis.

Quested 553

Genelec lower-price 3-way active

Genelec has launched the 1034B, a lower-priced three-way Active Monitoring System. It is designed for large control rooms and is loaded with a combination of two 12-inch low-frequency drivers, a 5-inch mid, and a 1-inch high-frequency tweeter assembly.

Claimed SPLs are in excess of 125dB at 1m while the vented configuration of the low frequency



HHB speakers

HHB has launched its own Circle 5 studio monitors. The active 2-ways employ an 8-inch bass driver, the cone thickness of which is varied across its diameter, which is mated to an aluminium voice coil. The tweeter is a fluid-cooled soft dome. The monitor is powered by an amp pack that delivers 129W to the woofer and 60W to the tweeter.

HHB 554



Low cost AE200

Acoustic Energy, designer of the AE1 nearfield, has launched the low-cost 2-way AE200. This uses metal cone driver technology for a claimed power handling of 125W, sensitivity of 89dB and a frequency response of 40Hz-25kHz.

The HF employs a 25mm aluminium alloy diaphragm, ferrofluid cooled and damped, while the LF employs a 130mm chassis with anodised alloy cone thermally bonded to a 32mm high-power voice coil.

AE 555

drivers extends frequency response down to 28 Hz. DCW technology is incorporated.

The system is completely self-powered and complete with internal crossover, room response equalisers and tri-amplifier assemblies. Bass, midrange and treble amplifiers each produce 2 X 400W, 350W and 120W of short-term power respectively.

Genelec 556



Monitors and sub from M-Tech

M-Tech has introduced four new products. The 2-way PM30 is designed for medium to large rooms while the 2-way PM15 for small to medium rooms. The PMS70 subwoofer is designed to integrate with the aforementioned and extends response to below 20Hz and employs an 8-inch x 12-inch elliptical long-throw driver. Input to the internal 100W amp and adjustable crossover is by phono or XLR.

Additionally a 2U-high rack-mount monitor is available in active or passive versions with an equalised frequency response and magnetic shielding.

Musical Technology 557

Alesis M1 Active

The M1 Active is a bi-amplified nearfield monitor. The carbon fibre coned 6.5 inch woofer is powered with a 75W amplifier and the one-inch tweeter has a 25W amplifier. Alesis says the woofer material is lighter than polypropylene, allowing for better transient response and greater detail in critical mid range areas. A pure silk dome is used for the tweeter, which Alesis claims offers a natural response.

Supplied as a mirrored pair for vertical or horizontal mounting, the M1 Actives have a stated frequency response of 38Hz-23.5kHz (-10dB point).

Alesis 558

FAR imitates TV

FAR now offers 'television speaker limitation' on its AV1 and AV5 active speakers following the analysis of the audio performance of more than 20 domestic TVs in an anechoic chamber. The results showed that certain frequencies are missing while others are boosted and the new switchable 'curve' on the monitors imitates this allowing engineers to mix while listening to what the end user will hear.

FAR 595

Yamaha puts power into post and home

Yamaha's new biamped powered monitor, the MSP5, is designed for a wide range of applications from home studios to postproduction. A custom 5-inch woofer and a 1-inch titanium tweeter are powered from separate amplifiers delivering a total of 67W, and full magnetic shielding allows use near video monitors.

Yamaha 559

HD-1 goes THX

Meyer Sound's HD-1 High Definition studio monitor, has been THX approved for use in the new THX Certification Program, THX PM3, which includes multi-channel mixing and monitoring rooms. The monitors were released in 1989.

Meyer Sound 560



Low-pro PMC

PMC has designed the new low-profile version of the IB1S for 5.1 channel work with mirrored pairs of speakers and centre channel singles. Options give 1.5dB and 3dB cuts on the HF and a matching sub bass is available.

PMC 561

audio Design
its brick wall

Drawmer digital D

Drawmer has introduced digital products for 24/96 processing and analogue-digital conversion. These products will offer 'infused analogue' sound on active THX A/DAT SP/1P and

FOR FURTHER PRODUCT INFORMATION USE OUR FREE ENQUIRY SERVICE



Genelec adds SPDIF

The company's first Digital Stereo Monitoring System, the Genelec 2029A 'master and slave' nearfield monitoring system is based on the 1029A two-way active monitor and supports the same modes of operation including incorporation into monitoring systems with a subwoofer. The system is designed to accept SPDIF or analogue audio inputs and the digital interface is built into one of the system's enclosures.

Genelec 562



Westlake monitors

The 3-way bookshelf LC3W10 monitor from Westlake (top) has extensive dampening, an integrated passive crossover and a claimed high output.

The speaker contains a 10-inch polypropylene woofer, 5-inch midrange and 3/4-inch tweeter with an 80W power handling capacity and sensitivity of 88dB@1m for 2.83V input. Frequency response is claimed as 42Hz-20kHz.

Westlake has also announced the LC265.1 centre channel speaker (above) driven by dual 6.5-inch woofers, 5-inch coaxial mid and 1-inch tweeter.

Westlake 563



Stage Accompany

Stage Accompany's studio monitor series is expanded with a new ribbon-based design, the M57.

Intended as a main monitor for recording and editing rooms, the M57 uses the SA 8535M Ribbon Compact Driver for mid and highs, coupled with two 12-inch LF drivers specially treated to maintain performance with age. The use of the ribbon provides a linear response up to 20kHz, and is claimed to give precise stereo imaging without colouration to avoid listening fatigue. Single or bi-amping is accommodated and the system has a maximum input capacity of 1000W.

Stage Accompany 564

JBL offers whack for bottom

The need for a low-frequency monitor for surround work has a new contender in the form of the JBL LSR12P.

The powered subwoofer uses JBL's Differential Drive technology, which has two voice coils in each driver wired 180 degrees out of phase to double the power handling. This is combined with a direct radiator approach rather than the band-pass approach used by other systems, and lightweight Neodymium transducer technology with JBL's Linear Dynamic Aperture design. The

ATC launches sub for surround

The 5.1 surround mixing environment can now benefit from ATC technology in the often-neglected area of the ELF sub-bass channel. The new SCM0.1/15 high power sub bass enclosure uses ATC's established Super Linear driver technology to produce SPLs up to 124dB with a response down to 18Hz within 6dB.

It uses a robust 15-inch driver and a built in amplifier with a peak programme capability of 1000W, housed in a 2-foot cube. The SL technology uses non-conducting materials around the voice coil to

eliminate eddy currents, and is said to improve third harmonic distortion by as much as 15dB. This is of particular relevance in this application as it avoids the addition of higher harmonics that would identify the sub bass location within the surround field.

Signal processing is provided to shift the phase of the system and adjust the low pass filter point to integrate with a variety of systems. The low pass filters are designed to meet the requirements of systems such as Dolby AC3.

ATC 565

Munro Associates with THX

The M3F dubbing monitor system has received THX

approval. The system uses digitally controlled, active three-way enclosures, which are 400mm deep to allow mounting behind projection screens. The manufacturer states that it is also possible to configure a five-speaker front wall within three metres width and one and a half metres height.

According to Munro, the THD figure of less than 1% is achieved through a combination of dual bass and mid drivers, plus a 'soft horn' driver for the upper frequencies. The supplied digital con-

troller includes presets for all standard reference curves and a screen compensation filter as part of 'an almost infinite' number of possible settings. Systems can be supplied in any configuration from mono to 7.1.

A 5.1 system is supplied with 11 channels of amplification, producing a combined sound level of more than 130dB at 100Hz in a room of up to 500 cubic metres. Each system is installed and equalised using the MLSSA acoustic measurement system and THX R2 theatre spectrum analyser.

Munro Associates 567



result is said to be exceptionally well-defined bass and unusually high power levels with very low distortion.

A special feature is the multi-input capability, allowing sub-channel frequencies to be derived from either the LCR channels or a completely discrete source. This is to help accommodate the changing needs between matrixed and discrete surround mixing, and there is an auto patching mode allowing remote switching of the input source.

JBL 568

Hafler makes smaller monitors

Based on the larger and established TRM8 monitor, Hafler's new TRM6 2-way, biamped active speaker is being offered at \$1399 a pair.

The monitor is magnetically shielded and based on Hafler Diamond series amp technology with a claimed free-field response of 55Hz-21kHz +/- 2dB.

The speaker incorporates a 1-inch soft dome tweeter and 5.5-

inch polypropylene woofer. The front panel has power, clip and thermal LED indicators while the rear houses XLR and phono inputs with DIP switching of balanced operation, input sensitivity, tweeter/woofer muting, and bass and treble shelving.

The model is complemented by the TRM10S powered subwoofer using a 10-inch driver.

Hafler 569



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The awesome HM415 is the top of the range 4-way active system weighing 268kg (590lbs). The cabinet houses four 380mm (15") bass drivers, a unique 170mm (7") rigid PVC foam domed low mid and custom soft dome high mid and tweeter. The power is provided by 5 Quested AP700 amplifiers which are capable of producing over 5,000 watts rms. The result is a system that produces an SPL of well over 130dB, capable of stunning transients, is flat down to 25Hz and is suitable for the largest control rooms.

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pure sound

EAW's active 3-way

A new active three-way system, the KF400a enclosure houses 15-inch, eight-inch and 1.4-inch exit drivers, as well as Class H Mosfet amplification for each driver.

According to the manufacturer, a mathematically correct midrange horn flare and superior phase plug make for an open and clean sound more like a direct radiator but with tight pattern control.

Housed in a Baltic birch cabinet, the system weighs 163lbs, has a nominal coverage pattern of 65x45° and a quoted frequency response of 62Hz-20kHz. Long term maximum output is said to be 122dB, with peaks of 126dB. The cabinet is fitted with three 3-position flytracks, with flying hardware and caster pallet available as options.

EAW 570

SoundTech adds six

Six models have been added to the Titan series of sound reinforcement enclosures, of which all but the R28 dual 18-inch sub woofer are in trapezoidal enclosures.

There are three two-way systems loaded with 10-inch, 15-inch or dual 15-inch bass units, plus two subwoofers loaded with 18-inch and dual 18-inch drivers.

The new models carry a plus designation, indicating the use of four-inch voice coils on the cone drivers. The T5+ and T25+ are loaded with large format horns and a two-inch compression driver, as well as the updated 15-inch units. SoundTech also recently introduced a self-contained, tri-amplified sound reinforcement system and a portable PA setup aimed at smaller users.

SoundTech 571

**ARX updates the PowerMax3**

ARX systems has released an updated version of its PowerMax3 full range processor-controlled monitor loudspeaker system. The cabinet remains the same, allowing long throw, nearfill and sidefill applications, but the drivers are both new.

Low frequencies are handled by an upgraded 12-inch driver with

increased low frequency output and power handling, while HF was a new Ferrofluid-cooled 1-inch throat aluminium diaphragm compression driver loaded on to a 90x75-degree constant directivity horn. The crossover is a phased aligned 24dB design using high tolerance passive components.

ARX Systems 572

Klipsch on walls and ceilings

Installation speakers recently added by Klipsch Professional include weather-resistant units, wall and ceiling units, as well as a high quality system suitable for side wall or under-balconies.

The KAW 1.1 weather-resistant system is a two-way design designed to deliver full bandwidth. Handling 75W using a 5.25-inch woofer and one-inch neodymium HF driver, the system is said to be loud and intelligible.

There are five models in the new line, all using a two-way design and including weatherproofed hardware and grilles which may be painted. The largest wall speaker is

the IW-250, which has two 6.5-inch woofers. Also offered are the IW-150 with 6.5-inch woofer and IW-50 with 5.25-inch woofer.

The largest ceiling unit is the IC-800, which has an eight-inch woofer. There is also an IC-525 with 5.25-inch woofer. Originally designed for high-end surround applications and offering a 180 degree coverage pattern, KSF-S5 is also suggested for side wall and balcony applications in foreground and background use. The system is quoted as having a 60Hz-20kHz frequency response and a power handling of 100W continuous.

Klipsch 573

Sound Music

The AC Pro series of enclosures from Sound Music Products comprises two trapezoidal cabinets with bow fronts, steel grilles and carpet covering. Integral hardware includes stand adapters.

ACP110 has a quoted frequency response of 50Hz-20kHz, a power handling of 250W RMS, and sensitivity 102dB at 1W/1m. The ACP112 bass unit has a quoted frequency response of 40Hz-300Hz, power handling of 300W RMS and a sensitivity of 98dB at 1W/1m. A high pass crossover is included.

Sound Music 574

SA Performer

Performer P2-29 SB is described as a 'new generation in sound reinforcement systems' which brings Hi-Fi quality to concert sound levels. Performance is said to be 30Hz-30kHz at 146dB 'with only a tenth of the distortion of existing systems'.

The basic system configuration consists of four P29 top cabinets loaded with SA's air cooled 8535 ribbon compact driver and double SA 15-inch midrange. Four SB45 sub cabinets each contain triple long-excursion SA 15s. The two PR2 amp racks house two PPA1200 power amplifier/system controllers each.

These are digitally processed amplifiers operating under dedicated software with Dynamic Damping Control, Auto Energy Control and SA-Net. SA claims its DDC design makes for very high damping and therefore a tight and accurate speaker response. Cables, wheel dollies and fly-ware are also included.

Stage Accompany 575

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loudspeaker of exceptional clarity, with a sound that doesn't fatigue the listener, even after a long session. So if you're looking for a great sounding studio monitor, listen to the Circle 5 at your nearest HHB dealer and prepare to be impressed. Then

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Peavey Electronics

An addition to the Impulse range of enclosures, the 200 Sub has a special venting system which the manufacturer claims allows for more low end than would be expected from a compact unit loaded with a 12-inch driver. Both the polypropylene enclosure and speaker unit are said to be weather resistant, and the driver basket assembly is field-replaceable. Mounting points are fitted to the top and bottom of the cabinet, which is also fitted with jack and Speakon connectors.

Peavey

576

Electro-Voice

EVI-28 is an enclosure which combines a small-format Vari Intense horn with two 8-inch cone drivers. The system is said to deliver a stronger signal to the back of the room and thereby eliminate the need for a combination of long and short throw horns. Available in black or white, the enclosures have a frequency response quoted as 62Hz-25kHz, with 200W continuous power handling and a peak output of 123dB.

EVI/Telex

577



Outdoor Community gets WET

Community has introduced its CWET series of loudspeakers, designed to withstand extreme long term environmental conditions while delivering the kind of sound quality expected from indoor enclosures.

The vital element is a heavy-duty one-piece hand-laminated all-fibreglass enclosure that is said to be completely impervious to weather and the effects of UV radiation. Community says these far outstrip laminated wood, rotomoulded and injection moulded enclosures for strength, rigidity and long-term durability.

Three-layer Weather-Stop

grilles prevent water intrusion and a one-piece fibreglass baffle secured with stainless steel fittings and a rubber gasket completes the picture.

Drivers have diaphragms made of advanced carbon fibre, mylar and polyimide materials, and Ferrofluid is used not just for the usual purposes but also to prevent corrosion in the voice coil gap. The first model is the WET228, with two 8-inch carbon fibre cone LF drivers and a new 1-inch compression driver coaxially mounted with the upper LF driver and fitted with a rotatable horn.

Community

578

Electro-Voice

New from EV are installation speakers and upgraded horns. New versions of the Sx300 and Sx500 enclosures for installation use are suffixed 'PI'.

Rated at 300W and 500W respectively, the systems have integral 100V line transformers and weather-resistant stainless steel grilles. According to the UK importer, the new grilles also make the units visually less obtrusive and therefore more suited to the installation market. An upgrade kit is available to owners who do not need weatherproofed enclosures but would like to adopt the more subtle look.

Upgraded versions of the EV MH4020 form an MH Stadium Horns series, with four new models. The new designs employ EV's Ring Mode Decoupling system, said to eliminate unwanted resonances for greater clarity over long distances. MH4020A is a straightforward RMD enhanced version of the original horn; MH4020N provides an extra 3dB above 5kHz, while the MH4020AC and MH4020NC add a coaxially mounted 40x20 HF horn, with 150W power capacity in the HF range for the 'NC' version.

EVI/Telex

579

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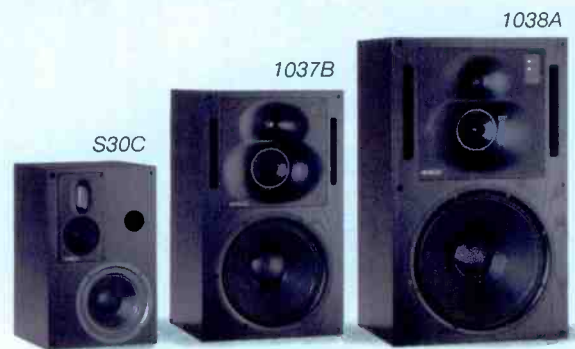


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Reader Response No. 049

Klipsch round the ear

The new KSP-S6 enclosure is said to provide a broad and even 180 degrees of coverage for a variety of systems contracting applications. It employs proprietary Wide Dispersion Surround Technology. A two-way system, the KSP-S6 has two 6.5-inch K-1057-K woofers, plus a pair of one-inch K-96-S neodymium compression drivers coupled to 90x60 degree Tracrix horns. The speakers are available in black matte or white vinyl cabinets. A frequency response of 60Hz-20kHz (3dB) is quoted.

Klipsch 580

Radian monitor

Available in passive or bi-amped versions, the RPX-112 on-stage monitor is now shipping. Based on Radian Audio Engineering's proprietary 5312 coaxial driver, the system comprises a 12-inch woofer rated at 500W RMS with a two-inch exit compression driver rated at 60W RMS. The passive version of the system is the RPX-112P and it is fitted with a 1.25kHz crossover, rather than the bi-amp connections of the RPX-112B.

Radian 581

Master Europe offers 3-way

The Promann PC312 is a three-way sound reinforcement enclosure which can be used individually or flown in clusters for broader dispersion and increased SPL. The manufacturer states that, with a frequency response of 50Hz-20kHz, the PC312 is suitable for use as a standalone. In addition,

it can be used in active or passive mode with a choice of amplifier arrangements.

The PC312 is loaded with Eminence drivers comprising 12.2-inch bass unit, 6.7-inch mid and a 3/4-inch compression driver.

Master Europe 582

Cerwin-Vega

Billed as an improvement on the original L-36PE Portable Earthquake, the SL-36 18-inch bass horn has greater power handling and lower frequency response.

The 18-inch driver is a new, high excursion design with longer voice coil and improved mechanical suspension. An aluminium chamber

panel for the woofer acts as a heat sink and is said to help prevent power compression.

A proprietary throat exit design is said to allow for more uniform loading of the woofer. The standard jack connectors are now supplemented with Neutrik Speakon connectors and the enclosure is provided with a stainless steel bar handle.

Cerwin-Vega 583

Radian coaxials

The RCX-122PV and RCX108PV from Radian are arrayable enclosures based on a two-way 12-inch and eight-inch coaxial driver respectively.

The larger system is rated at 600W continuous power while the smaller is said to provide 400W

continuous.

Intended for permanent installation only, both units are covered in a proprietary Duradian black textured finish and have multiple ATM fly points. The smaller unit is also available as the RPX-108PV portable version with handles and a pole cup.

Radian 584

Roland wedge

The compact SSM-151 floor monitor is loaded with a 12-inch cone driver and a horn tweeter. Average power handling is said to be 150W for the enclosure, which is aimed at small to medium sized venues and can be mounted at 35 or 55 degrees. Standard inclusions are Speakon connectors and resettable tweeter protection.

Roland 585


HK Audio fill

LP 115M is a new stage monitor, which forms part of the Linear Pro PA range. It is apparently equipped with a custom designed 15 inch bass speaker and a revolutionary BMS DC-1 one-inch driver with a 60x40 square horn.

This is said to minimise distortion and allow for a substantially lower crossover frequency. The enclosure has a power rating of 400W and is fitted with two Speakon connectors. The cabinet can be set to two different angles on stage and an integral stand adaptor allows for use as a sidefill or FOH reinforcement. A flying version is also available.

HK Audio 586

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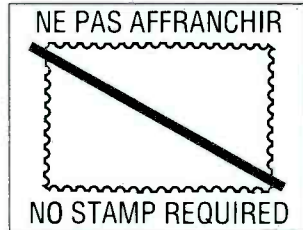
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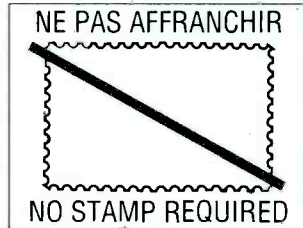


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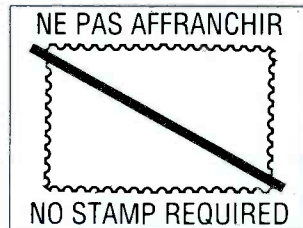


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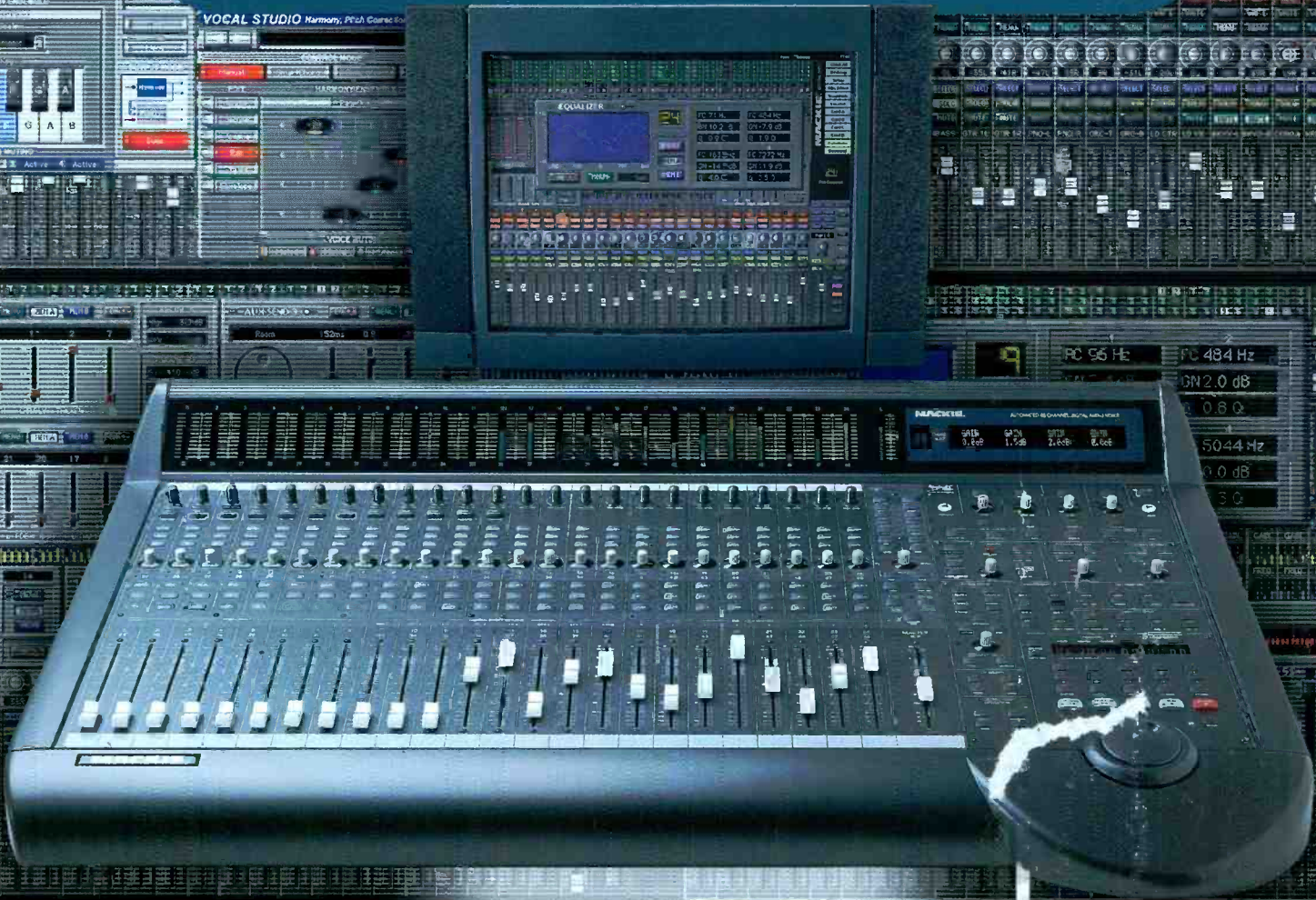
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