News & New Products

Yamaha DM1000

ust when you thought Yamaha Couldn't slice the digital mixing pie any finer, out they come with the DM1000! Designed to meet the needs of the audio for film, video, post-production, and broadcast markets, the multiplatform DM1000 delivers 48 channels of 24bit/96k audio. effects and processing on every channel, extensive surround production

features, integrated control for digital audio workstations and automated recording into a compact rackmountable package. As you'd expect from Yamaha, there's plenty of effects and dynamics processing to go 'round, there are eight auxiliaries, frame-accurate automation, and I/O options via YGDAI cards – while a meterbridge is optional. The DM1000 is due for release in March.

> Yamaha: www.yamahacommercialaudio.com or info@yamahacommercialaudio.com

ProTools for OS X

igidesign has announced the arrival of Mac OS X support. ProTools 6.0 software will offer a streamlined new look for the



Mix, Edit, and Transport windows, making this the 'most user-friendly ProTools software environment yet'. New multi-user login functionality enables individual users to save custom display, operation, editing, automation, processing, compati-

bility, and Midi preferences, providing a new degree of personalisation within the Pro Tools environment.

Pro Tools 6.0 software also features the new DigiBase file management utility, enhanced Midi functionality (including hi-res groove templates), additional Beat Detective features, new Import Session options, plug-in functionality enhancements, and Machine Control additions. Best to head along to the Digidesign website if you're desperate for more detail.

Also, ProTools TDM 5.3.3 software for ProTools HD on Windows XP is now available. This version of Pro Tools includes many of the features previously released in Pro Tools 5.3.1 software for Macintosh computers.

Digidesign: www.digidesign.com or prodinfo@digidesign.com

Logic-al Move to OSX

he entire Logic range from Emagic is now available for Mac OSX. The rewrite boasts minimal audio and Midi latency, plus support of the new Audio Unit plugin standard. The update is now available as a free download for all owners of Logic Gold 5 for Mac and Logic Audio 5 for Mac.

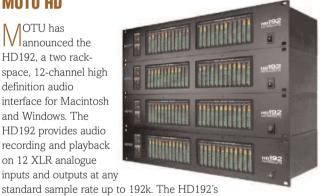


Emagic has also released an update to its EXS24 software sampler for the Logic Series. New features include a new superior sounding multi-mode filter, three LFOs, new user-interface and a modulation routing system from any source (including side-chain level) to any target.

Emagic: www.emagic.de

MOTU HD

/IOTU has announced the HD192, a two rackspace, 12-channel high definition audio interface for Macintosh and Windows. The HD192 provides audio recording and playback on 12 XLR analogue inputs and outputs at any



PCI-424 card features CueMix DSP, a DSP-driven mixing and monitoring matrix that provides the same near-zero monitoring latency as today's latest digital mixers. Like the 2408mk3, the HD192 provides on-board SMPTE time code synchronisation features. These features allow users to slave their HD192 system to SMPTE time code (via any analogue input) without a dedicated synchroniser. The HD192 will be sold as both a core system (with PCI card and AudioDesk software for US\$1,895) and expansion I/O (US\$1,595).

Mark of the Unicorn: www.motu.com or info@motu.com

Roland MC-909

he MC-909 Sampling Groovebox is Roland's latest flagship audio+Midi music workstation. Just briefly, here are some



of the features: 64-voice workstation with XV synthesis, sampling, 16-track sequencer, effects and graphic LCD; 16MB sample memory expandable up to 272MB using optional DIMMS, and SmartMedia storage for sample data; Hundreds of new high-quality patterns, sounds and rhythm sets — expandable via SRX-Series wave expansion board; studio-quality effects, including 24-bit reverb, two multi-effects processors, compression/EQ and mastering effects; built-in USB port for sample/Standard Midi File transfer and User data backup; S/PDIF digital I/O, six analogue outputs and stereo analogue inputs; dual D Beams, Turntable Emulation and velocity-sensitive pads — plus front-panel knobs, buttons and sliders to modify sounds and patterns.

Roland: www.rolandus.com

Furman is IT

The IT-Reference is the newest product to join Furman's popular IT-Series of AC filtering and conditioning products. Like the previous IT-1220 model, IT-Reference is a 20A unit and utilises Furman's high current, ultra-low impedance transformer technology. Additionally, the IT-Reference has individual windings which provide total isolation for each set of outlets. This is critical, as modern video and digital components can cross-couple system noise into each other's signal paths (sometimes called 'backwash'), even with the best AC source. The IT-Reference also includes Power Correction Circuitry which gives power amplifiers and powered speakers the ability to produce powerful dynamics with speed and clarity unattainable with normal wall power.

Furman: www.furmansound.com

Universal Strip

niversal Audio's new 6176 channel strip combines the company's two most successful products – the 2-610 mic/instrument preamp and the 1176LN compressor – into a single 'channel strip' product.

Also new from Universal is the 2192 Dual D/A and A/D converter. It's a single rack unit that provides simple front panel controls, supports sample rates up to



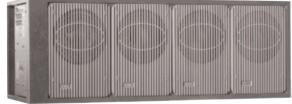
192k and translates codes between AES/EBU, S/PDIF and Adat in real time, with single and dual wire AES modes.

Universal Audio: www.uaudio.com or info@uaudio.com

Genelec Hits Low Point

enelec has introduced the new 7073A Active Subwoofer. Designed for large-scale installations in either stereo or surround, the 7073A features four 12-inch

drivers, fast-acting, low distortion amplifiers, 124dB SPL capability down to 19Hz, plus a full 6.1-capable bass management system for impres-



sive flexibility. In addition, all electronics are integrated into the 7073A subwoofer cabinet, including active crossover filters, driver overload protection circuits, and power amplifiers.

Genelec: www.genelec.com

News in Brief

The Platinum VoiceMaster PRO, a 2U mono rackmount device from Focusrite is a revised version of the original VoiceMaster unit, but packs a few more surprises taken from other Focusrite units and offers a 24/96 A/D converter (with word clock) option.

Focusrite: www.focusrite.com or sales@focusrite.com

The Fast Guide to Propellerhead Reason is the book Reason users have been waiting for to help them get the very best from Propellerhead's electronic music studio software. This in-depth guide takes you through every separate Reason device, including the analogue-style SubTractor synth, the amazing new Malstrom Graintable synth, the two easy-to-use samplers, the funky Dr:rex loop player, the vintage-style ReDrum drum computer, and the quick and simple sequencer. AT gives this book two thumbs up'!

PC Publishing: www.pc-publishing.com

The new JL Cooper CS-32 MiniDesk is a miniature control surface for fast access to the most commonly used functions in most audio programs. There are 32 dedicated faders/channel strips for real-time control of volume levels, Mute, Solo, Track arming etc. There's a jog/shuttle wheel, and six assignable rotary knobs. Midi, USB and RS-232 models are available.

JL Cooper: www.jlcooper.com

Euphonix and Steinberg have announced a strategic relationship between the two companies, to develop integrated professional audio products for the music and audio post-production markets. The idea being to produce a professional control surface with high quality hordware I/O and a world-class workstation software package. At the recent AES exhibition both companies displayed a System 5/Nuendo combination.

www.euphonix.com or www.steinberg.net

Marantz has introduced a transportable CD recorder designed to replace the humble portable cassette recorder. Marantz figures that for voice-only applications (the last bastion of the cassette) could well benefit from the services of the CDR300. The new model includes the facilities to make fully professional recordings with CD Text read and write, SCMS recording on/off and auto finalise. For the less experienced user an automatic level control with limiter can be switched in for 'single button' recording simplicity.

Marantz: www.marantz.com

RME's HDSP 9652 is the long-awaited successor to the well-known PCI card Project Hammerfall (DIGI9652). Like the original Hammerfall, HDSP 9652 offers three x Adat optical I/O, Adat-Sync In, S/PDIF I/O and word clock I/O. On top, there are two Midi I/Os and TotalMix – a DSP-based real-time mixer/router. As with previous RME efforts, latency is admirably low.

RME: www.rme-audio.com

Denon's new DN-C615 offers compact disc playback of various formats, including standard Compact Discs, CD-R/RW, and MP3 encoded discs. Featuring a Shock ... Proof Memory for uninterrupted playback, the DN-C615 is also able to display CD encoded text through the use of a highly visible FL tube display. The high-speed

News in Brief

Instant Start functionality allows for instantaneous playback when a key is pressed.

Denon: www.denon.com

Lexicon's new MPX 550 is a true stereo dual-channel processor featuring 24-bit A/D and D/A conversion and 24-bit internal processing. Around the back you'll find both balanced analogue I/O's and S/PDIF digital I/O. The MPX 550 has 255 presets (plus 64 user definable) with classic true stereo reverb programs, as well as dual programs that combine two independent effects plus digital compression in four routing configurations.

Lexicon: www.lexicon.com

M-Audio has announced Radium, the latest in the popular Midiman Keystation line of USB Midi controllers. Radium sports eight Midi-assignable knobs and eight Midi-assignable sliders augmenting its 61-note keyboard. Radium offers users real-time control of any 16 Midi parameters within their favourite software programs. Five user-definable preset banks extend this control to 80 Midi parameters.

M Audio: www.m-audio.com

Millennia Media has unveiled their upcoming Twin Topology product, the Twin Direct DI box. Offering triple selectable input impedances of 0.5, 2 and $20M\Omega$, The Twin Direct also provides vacuum tube or discrete solid state (FET) DI input stages.

Millennia Media: www.mil-media.com

Sonomic is an on-line sample library that offers you speedy access to the sounds you need through a suite of tools designed to 'optimise production efficiency and creativity'. Sonomic boasts 'the largest and most comprehensive' online library of professional samples and sound FX, and after a few visits I've no reason to contest their claims. The site is elegantly laid out, and locating exactly what you need is very easy indeed certainly beats trawling through a shelf full of sample CDs, and you only pay for what you need. Go and have a look for yourself.

Sonomic: www.sonomic.com

Rocket Network Inc has announced a licensing agreement with Audio Processing Technology (APT) that will enable Rocket Network to integrate the industry standard apt-X digital audio data compression with RocketDelivery, the company's product for simple, secure and speedy file delivery.

APT: www.aptx.com

The ProTools LE 5.3.3 software release brings Windows XP support to Digidesign's Mbox, and includes all of the functionality of ProTools LE 5.3.1 software in conjunction with support for the full hardware feature set of the Mbox interface. If you purchased an Mbox system that shipped with Pro Tools LE 5.2 for the Mac you can now use Mbox with Windows XP systems by downloading the new software on www.digidesign.com/download/mboxwin

Digidesign: www.digidesign.com

Alesis ProLinear

It's good to see Alesis squarely back on the audio block with the release of a number of new products. Not least their ProLinear 720 studio monitors. The ProLinear 720 is a biamplified two-way studio reference monitor with a seven-inch Kevlar woofer and a one-inch silkdome tweeter. By integrating proprietary 28-bit DSP, the ProLinear implements the crossover entirely in the digital domain to provide a 'precisely controlled response'. Thanks to its digital control you can also set and store multiple EQ curves for individual speakers, or for every speaker in the studio. The 720s are due for release in February.

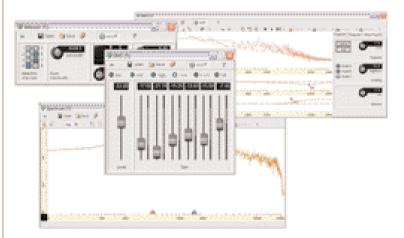


Alesis: www.alesis.com or info@alesis.com

AdrenaLinn Injection

AdrenaLinn is a 'radically new' guitar effects processor from Roger Linn – creator of the digital drum machine, guitar player and designer of other natty audio gizmos. AdrenaLinn delivers Groove Filter Effects – a new palette of sounds that alter your tone rhythmically in sync to its internal drum machine or to Midi. There are some 'Classic Filter Sounds' including envelope filter and note-triggered envelope swells. And with the ability to route any modulation source to any filter type, you'll get entirely new sounds. Also on board is amp modelling, which offers everything from clean twangs to super-overdriven stacks.

Roger Linn Design: www.rlinndesign.com



CEDAR Cambridge

EDAR is moving with the changing times of surround systems and 24/96 replay systems, with the release of Cambridge. CEDAR Cambridge incorporates a suite of completely new CEDAR algorithms capable of removing more noise – and more types of noise – 'than ever before', without damaging the desired audio or introducing unwanted side-effects and artefacts. Cambridge is a real-time system that applies multiple processes to your audio as you monitor it; it's a fully automated system with a dedicated, 1U rackmount timecode reader/generator; it's completely modular (only use the tools you need); there are a wide range of I/O formats, channel, metering and dithering options; and is equally happy in the world of mastering, noise suppression, analysis and restoration.

CEDAR Audio: www.cedar-audio.com

Sound Bites

A study by Doug Cato, an acoustics expert at the Defence Science and Technology Organisation, and Rob McCauley, a research fellow at Curtin University, Western Australia, has concluded that there are more mysterious sounds emanating from the depths of the ocean than documented ones. Noises that no-one can account for have been recorded by hydrophones left on the ocean floor, sometimes for up to several weeks. Sounds like distant thunder, a chainsaw, trees full of cicadas and electric guitar power chords are among the more "familiar" noises recorded, whilst shallow water recordings of fish choruses have, at their height, "produced so many sounds that they merge into a nondescript roar". Dr. McCauley says some of these underwater cacophonies are so loud that "waterfront residents and fishermen report hearing strange noises emanating from the ocean". Spooky. - AS.

Top of the range hi-fi company Blaupunkt has found an unusual use for **DK-Audio's** MSD 100 meter – it is using the oscilloscope function to check the signal received by its in-car radio systems during R&D.

Blaupunkt design engineer, Mike Stosich, has installed the meter in his own car and says it has made it much easier and faster for him to report back to the company's design team. In fact, he is so taken with the MSD 100 that when his car was recently broken into and the meter stolen, virtually the first person he called was DK-Audio's US vice president, John Terrey, requesting a replacement.

He says: "As I'm testing new radio units while I'm actually in my car, I needed an oscilloscope with an easily visible X-Y display so that it wouldn't create a driving hazard. Before I obtained my MSD 100, I was using a huge Tektronix, which lived on the back seat of my car. I had to view it via the rear-view mirror – and I needed a huge 12VDC to 120VAC power inverter to power it. This created all sorts of interference with AM radio and really wasn't ideal."

DK Audio: www.dk-audio.com or info@dk-audio.com

AKG has been shipping the world's first array microphone for use in Mercedes' E-Class vehicles. The AKG Array mic delivers voice signals of 'considerably improved audio quality' to the car phone and to the 'Linguatronic'

voice control system.

An array mic uses four mics feeding a digital signal processor to provide higher directivity for better elimination unwanted noise. The control software allows the polar response of the



mic to be changed without physically repositioning the mic array – so it can be aimed at either the driver or the front seat passenger. Also the direction of maximum rejection can be steered to reject specific noise sources. Digital noise and echo suppression algorithms minimise any residual noise in the signal.

www.akgacoustics.com

SADIE Series 5

SADIE has announced a major redesign of PCM and DSD editing workstations known collectively as Series 5. With increased processing muscle, the new platforms include full real-

time DirectX plug-in support with latency compensation,

standard Windows networking and single-wire AES for sample rates of 88.2k/96k and above, as standard.

The PCM4, the company's entry-level product, is set to continue the strong presence of SADiE products in the radio/speech production arena. The PCM4 can replay up to 24 streams or tracks.

The PCM8 follows on from the $24 \cdot 96$ /Artemis systems and offers similar functionality to the PCM4 but with eight physical in/out capability, analogue and digital, and replay of up to 32 streams. Several different editing paradigms are supported for maximum functionality, including CD pre-mastering, music editing, surround editing and mixing, and film and TV post.

The DSD2 and DSD8 are editing and authoring workstations for the Super Audio CD format. The DSD8 expands the DSD range with a true 64fs processing multi-channel system capable of simultaneous recording of eight tracks plus replay of eight edited tracks (16 streams) of DSD material.

SADiE software upgrades will continue to be free.

SADiE: www.sadie.com or sales@sadie.com

Bollywood Balances with Libra

Premier Bollywood mixing facility
Gaurav Digital has chosen AMS Neve's Libra Post console for their Studio 2 in order to allow engineers to move projects between the new console and their existing AMS Neve Logic 2 in Studio 1. The facility chose the Libra Post in order to meet demand from clients: prior to



 $An\ AMS\ Neve\ Logic\ MMC\ in\ Tokyo's\ MacRay\ \ studio.$

installing the new console Gaurav Digital had to turn down work. "The Libra Post is being used to pre-mix films before the track is moved to the Logic 2 studio for final mixing. This means that the facility can now mix more films due to the compatibility between the Libra Post and Logic 2 studios".

Other AMS Neve news sees Fuji Television Japan ordering a Neve 88R analogue console to be installed into a refurbished recording studio at the Tokyo Media Centre in the Setagaya-ku district of Tokyo. The new 88R replaces a Tamura console in the A-2 Studio where it will be used for mixing drama and variety programmes in 5.1 surround sound. Fuji Television is just one of a number of broadcasters to select the Neve 88R. TV Asahi, also based in Tokyo, will open their new 73,700sqm premises with the installation of an 88R into the Audio Sweetening Room. In Beijing, Chinese broadcaster China Central Television (CCTV) has also installed an 88R into a 480sqm recording facility.

Capping things off, the Ray Corporation is one of the premier facilities in Japan to recently order the Logic MMC. The Tokyo-based facility is installing the console for audio sweetening and mixing movies in the MacRay studio, a new room at the facility. The Logic MMC will also be used for 5.1 surround, stereo mixing and DVD authoring.

AMS Neve: www.ams-neve.com

Live News

DiGiCo D5

The D5 Live brings together an innovative user interface that includes four large TFT touch-screens, moving faders, total recall of all settings, built-in dynamics processing and an optional integral digital effects module, in an extremely compact, durable frame. The system includes local and stage-end DigiRacks and a

100m reel of fibre-optic cable. The D5 Live and its development prototype, the Soundtracs DS3B. were used on the recent Rod Stewart world tour, with production manager Lars Brogaard and FOH engineer Taidus Vallandi evaluating the console and feeding back comments to the R&D team. At the end of the tour this summer, Brogaard commented: "We took it out on the road, played some of the biggest venues in the world and never had a single problem with it – the reliability was absolutely

flawless. Even though it packs in an incredible range of features it's the most user-friendly console I have ever mixed on, and it sounds wonderful."

DigiCo: www.digiconsoles.com

New VerTecs

BL Professional has launched three new VerTec system models for medium and small sound reinforcement applications – such as theatres, houses of worship, and performing arts centres.

The VT4887 compact line array element is a dual eight-inch, biamplified three-way design weighing only 28kg. It has a frequency range of 60Hz to 22kHz from a 1000W LF section and 225W MF/HF section. Horizontal dispersion is 100°.

The VT4888 mid-size line array element is a dual 12-inch, three-way design and weighs 49kg. It has a frequency range of 48Hz to 18kHz, realised with a 2000W LF section, 600W MF section and 150W HF section.

The VT4881 compact, very low frequency module is a dual-coil



15-inch arrayable subwoofer with a frequency range from 18Hz to 160Hz and a 1000W.

JBL: www.jblpro.com

EV's Compact Line Arrav

lectro-Voice has introduced the XLC compact linearray, designed to meet the challenges of difficult acoustical environments, namely, performing arts venues, houses-of-worship, and sports facilities where a traditional linearray is too large.

The XLC 127 is a three-way design that utilises a 12-inch vented LF, two x 6.5-inch MF transducers on a 120° horizontal waveguide, and two HF transducers that combine through a new vertical plan wave generator to a 120° waveguide. Sub bass extension is provided by the 18-inch loaded XLC 118.

Electrovoice: www.electrovoice.com



SC Audio Products is undergoing somewhat of a facelift at the moment. It's modernised the logo and is expanding its product range – with 'integrated audio systems' being the aim. Hence the new additions to the ISIS range of multi-purpose enclosures. The 101M, 102M, 102W, 122M and 152M are well suited as 'top boxes' to complement the ISIS 215PCM subwoofer. QSC has also added to their RMX and Powerlight range with the RMX405 and PL6.0 II respectively.

QSC: www.qscaudio.com

Trantec Reads Palm

rantec is well known among connoisseurs of wireless systems — their S5000 and S4000 ranges are very highly regarded. Recently Trantec has released a miniature beltpack transmitter to complement the S5000 range. Known as the S6000 mini-beltpack, the product is 64 channel switchable, operates for eight hours on a single AA battery, and features a miniature rounded design for comfort. But the killer is — gain, frequency and user name can be programmed via infra-red sources such as a Palm Pilot.

Trantec has developed a software program for the Palm Pilot for the purpose. When the gain and frequency information has been programmed into the Palm Pilot the 'Send' key is pressed and the unit is loaded via infra-red instantly.

Trantec: www.trantec.co.uk



JBL VerTec at China National Day

As a part of the weeklong China National Day celebration and Holiday, "Praise for the Mother Land", a large-scale music and performance event was held at Shanghai's new Hong Kou soccer stadium on October 1, 2002. Shanghai TV provided the sound system for the show using their new JBL VerTec VT4889 Line Array and HLA speakers with Crown amplifiers and dbx signal processing.

This was Shanghai TV's first use of their new JBL/Crown sound system purchased from JBL distributor Advanced Communication Equipment International (ACE). On each side of the massive stage, sound and lighting towers held arrays of 14 VerTec VT4889 speakers and side clusters of six HLA4895 three-way loudspeakers. Eight additional HLA4895 enclosures were used for front fills. On each end of the stage, six HLA4897A bass modules were positioned along with two VerTec VT4889 for side fills. Fourteen dbx 480 DriveRack controllers were used for the system, all operated from a single DriveRack 480 Remote at the front of house mixing position.

JBL: www.jblpro.com

Meyer's Esplanade Install

ingapore's newest international arts venue, Esplanade – Theatres on the Bay, features a world-class Meyer Sound reinforcement system.



Bob McCarthy, independent consultant and measurement expert, visited the Esplanade during the summer and spent three days repositioning loudspeakers, incorporating extra loudspeakers and using Meyer Sound's SIM System II FFT Analyzer to fine-tune the room. The revised design features three separate flown systems, each comprising an MSL-4 horn-loaded long-throw loudspeaker and a DF-4 dedicated downfill loudspeaker. The MSL-4s cover the second and third balconies, while the DF-4s take care of the first balcony and upper stalls. Permanent right- and left-side towers comprise one CO-1 Wide Coverage Main loudspeaker for the lower stalls, with a CO-2 Narrow Coverage Main loudspeaker covering the extreme sides. Each CQ-2 is inverted to allow the high frequencies to better cover the side stalls. UPA-2P Compact Narrow Coverage loudspeakers, positioned forward of each side loudspeaker tower, cover the extreme sides of the first level where the corporate boxes are located.

Meyer Sound: www.meyersound.com or sales@meyersound.com



Powered Digital Mixer with The Lot

The new Sony SRP-X700P is a digital powered mixer with a twist. The SRP-X700P combines an impressive set of features with high-quality processing and simple operation for managing even complex multimedia presentation systems. The SRP-X700P incorporates the functions of an RGB switcher, a video switcher, a twochannel wireless tuner base unit, a six-mono and two-stereo audio mixer, a digital power amplifier, a feedback reducer and a comprehensive digital audio processor.

Two PC applications are also supplied (SRP-X700P Manager and User Control Panel). The Manager allows the unit to be fully configured during installation and provides a complete set of control GUIs. The User Control Panel provides a simple control GUI for real-time presenter control. Additionally, the unit's 20 internal Scene memories – four of which can be recalled from front panel buttons - and the User Control Panel, allow an instant reset all of the internal processing, thus minimising downtime between operating modes. To cap it off there's plenty of machine control capability.

Sony: www.sony.com/proaudio

Tannov – V For Installation

annoy has launched the V Series, a new range of Point Source, Dual Concentric sound reinforcement loudspeaker systems. The Tannoy V Series builds on the company's reputation for its installation speakers with a new dual-wedge cabinet shape. The flexible and discrete cabinet shape makes the speakers ideal for use as floor monitors or as low-profile ceiling-mounted speakers in landscape configuration. In addition, the V Series features a foam covered mesh grille, essential for the aesthetic needs of today's installations. Tannoy: www.tannoy.com

Live News in Brief

Crown has redesigned IQ Network. The simultaneous introduction of new software and three PIP modules – the IQ-PIP-Lite, IQ-PIP-USP3 and IQ-PIP-USP3/CN – are bolstering the launch of the new platform.

Until now, IQ's system communication has been based on a proprietary two-wire bus. However, communication now travels via 100Mb Ethernet between components utilising Crown's new TCP/IQ protocol – offering higher communication speeds and the ability to add more components to a network. The TCP/IQ protocol has successfully been integrated into the present CobraNet digital network. This means that IQ components incorporating CobraNet now have a single network connection containing both bi-directional digital audio as well as bi-directional control and monitoring information for the amp and its related IQ functions. To take a look at the new modules log on to www.iqaudiosystems.com

Crown: www.crownaudio.com

Neutrik's EtherCon are rugged RJ-45 style connectors designed with audio and video stage technology, DMX systems and harsh environments in mind. They use a die-cast shell and Neutrik's chuck-type strain relief in order to reinforce the cable and protect the plug.

Neutrik: www.neutrik.com

Crest Audio's new Pro 200 Series of amps build on the success of their Professional Series with increased power, lighter weight, and a smaller enclosure at a reduced cost. The Pro 8200 offers 1,450W per channel (4,500 watts bridge mode) into 4Ω, Pro 7200 provides 1,000W per channel (3,300W bridge), and Pro 5200 has 525W per channel (1800W bridge).

Crest Audio: www.crestaudio.com

Audio-Technica has announced its newest lavalier offering – the AT899 Subminiature Omnidirectional Condenser Microphone. Intended for 'high-quality, unobtrusive' operation, the AT899 provides 'maximum intelligibility and clean, accurate reproduction for vocalists, lecturers, stage and television talent, and houses of worship'. The AT899 is 5mm in diameter. Also new are Audio-Technica's 5000 and 4000 Series wireless systems which feature true-diversity and frequency-agile operation. Multiple receivers of both series can be linked – the 5000 Series includes PC-and Mac-compatible control software.

Audio Technica: www.audio-technica.com

EAW's new JFX systems are equally suited to permanent installations and portable applications. Balance-optimised flytracks and hang points as well as pole mount cups and points configured to accept Omnimount or similar devices provide a variety of mounting options. And the asymmetrical trapezoid design allows them to work as main systems or stage monitors. The drivers have been designed from the ground up, as have the horns, while the cabs feature EAW's traditional ruggedness. The price is nice as well. Check out the website to look at the new models in the range.

EAW: www.eaw.com



QSC & EAW Hit The Track for Asian Games

The 14th Asian Games took place in Korea's second city of Busan in October, with the new Busan Asiad Stadium hosting the opening and closing ceremonies. Built for the 2002 FIFA World Cup, this was the same venue that staged the opening match between Poland and South Korea in June of last year.

In terms of success, the Asian Games took over where the World Cup left off. With all 44 countries in the OCA (Olympic Co-ordination Authority) taking part – including North Korea – it proved highly significant for world peace.

Not only does QSC amplification play a prominent role in the new stadium's infrastructure, but even more equipment was brought in to reinforce the Games' Opening Ceremony. The 80,000-seat capacity stadium's large EAW public address system is powered entirely by QSC CX Series amplification. To meet the specification, QSC's Korean distributors, Chungbo Sound Inc., supplied a total of three CX302, 31 CX502, 18 CX702, 29 CX902 and 24 CX1102 amplifiers to drive an EAW KF750F system for field coverage and an MQV system for the stand seating.

Planet of Sound, who also managed the Korea-Japan World Cup Eve Celebrations back in May 2002, also provided the PA for the Games' official inauguration.

For the main ground speakers, Planet of Sound installed an EAW Line Array System, in which three KF760/KF761 clusters and a single SB1000z subwoofer were positioned in 16 locations around the stadium perimeter. To provide sufficient power, the company drew on their inventory of QSC PL (PowerLight) Series amplifiers, deploying 16 PL 4.0 amps on the HF and MF sections of the KF760s and 32

PL 6.0 amps to drive the KF760's lowfrequency and the SB1000z sub.

Planet of Sound also used an LCS (Level Control Systems) Matrix3, which they had evaluated during the World Cup Eve Celebrations. In total, the company installed eight sets of surround effect speaker systems



– each made up of six EAW KF850 enclosures and two EAW SB850s. Further, 64 assorted amplifier models from QSC's EX Series product line provided robust power to create the surround sound effects throughout the entire stadium.

QSC Audio: www.qscaudio.com or info@qscaudio.com EAW: www.eaw.com