



The Professional Audio

SourceBook

Section 11a

Computer Audio Hardware

Computer Audio Peripherals

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AARDVARK

DIRECT PRO Q10

COMPUTER HARDWARE

792

10-in/10-out Audio Interface with 8 XLR Mic Preamps

Looks great. Sounds even better.

You've never heard mic preamps sound this good. Aardvark's unique Q10 brings a new approach to computer recording. Its 8 studio

quality XLR mic preamps have an ultra quiet .002% THD+N so you can professionally record an entire band direct to the computer without a mixer. Any of the 8 inputs can also be used as high quality 1/4" line inputs and take advantage of Aardvark's legendary sound quality and low-jitter performance. The Q10 has tons of studio-friendly features like 4 1/4" analog effects inserts for easy integration with outboard processors, phantom power, 2 EFR guitar Hi-Z inputs, front mounted headphone & line monitor out level controls, S/PDIF, MIDI, a shielded PCI card and comes with a full version of Cakewalk's Pro Audio 9.0 recording software.

The Q10 is compatible with almost all audio recording software, and is often used with Steinberg Cubase & Nuendo, Cakewalk Sonar, Emagic Logic Audio Platinum, Syntrillium Cool Edit Pro 2000 and gets ultra low-latency performance with software synths & samplers like Native Instruments, GigaStudio and Propellerheads Reason.



FEATURES

The Q10 embodies all of Aardvark's great hardware technologies to bring to you one of the highest quality systems available. It offers great mic preamps and converters, plus all the appropriate I/O's of an analog mixer. This means that with one unit, you can record direct to you computer without having to go through a mixer, noisy mic preamps and all the extra noisy cables just to record audio on your computer.



- ◆ 8 flexible and high quality inputs. The XLR inputs go directly to the discrete mic pre-amp circuitry, the 1/4" inputs go directly to the line level inputs.
- ◆ Software controllable analog input gain, applied before the A/D converter, maximizes headroom and gives you clean gain just like an analog mixer. There's even Aardvark's proprietary EFR™ Hi-Z guitar input circuitry to warm up any guitar you connect directly into the Q10.
- ◆ Unlike other soundcards that use standard "mic-pre-on-a-chip" solutions, which are not discrete and can lack the clarity and definition needed for professional use, the Q10's mic-pre's are a hand crafted, discrete transistor design that yield outstanding noise specs and pristine sound quality.
- ◆ The mic preamps are shielded in the break-out box and combine with top of the line converters to deliver professional audio quality from your mics to your computer.

The true brilliance of the Q10 is the combination of great sounding but flexible hardware & brilliant DSP-powered software. Discrete transistor mic preamps, 24-bit A/D-D/A, shielded PCI card and Aardvark's legendary digital clocking technology combine to deliver audio quality that is second to none. The flexibility of the hardware completely replaces an outboard mixer, so you can record directly to computer without sacrificing audio quality or studio functionality. The software-based DSP Control Panel uses the powerful DSP processor on the PCI card, so your computer keeps running lightning fast and in real-time. It's laid out much like an analog mixer, and leaves native power for you to run more plug-ins and other processing.

4 Inserts for Outboard Effects

The Q10 has four 1/4" TRS inserts that work just like those of an analog mixer. They connect directly to outboard signal processing gear so you can 'insert' the processed analog signal between the mic preamps and the A/D converter. This means you can integrate your classic analog signal processing gear such as EQs, compressors, and limiters with the Q10's crystal clear mic preamps, when you record direct to the computer.

2 EFR Hi-Z Guitar Inputs

The selectable front panel Hi-Z inputs (7+8) feature EFR (Enhanced Frequency Response) input circuitry specifically tailored for recording electric and bass guitars with a unique warmth and clarity. If you disliked the sound of a cheap DI box, then you'll love the warm, rich sound the EFR provides.

Headphone & Monitor Output

There is a headphone output on the front and stereo Monitor outputs on the back to connect directly to your speakers. Both outputs have individual level controls to give you mixer-like monitoring capability. Combine that with the 20 channel real-time DSP Mixer, and you have an incredibly flexible and professional system.



AARDVARK

DIRECT PRO Q10

Shielded PCI Card

With custom shielding on the PCI card, both the breakout box and the card are noise free, keeping harmful computer noise and EMI out of your precious audio.

Expandable

You can run up to 4 Q10's in the same computer for a maximum of 32 analog inputs and 8 channels of digital I/O. (In fact, all Aardvark audio interfaces can be expanded up to 4 units...mix and match!) Just connect the word clock in & outs on the Q10's to each of the devices and your running sample accurate with an unprecedented 40 channels of great sounding I/O. This is perfect for portable rigs that need tons of I/O and great sounding mic preamps.

Aardvark Low Jitter Clock

Every Aardvark computer audio card uses clocking technology similar to the legendary AardSync II master clock generator. The AardSync II is the industry standard master clock, used to sync Pro Tools, digital mixers, A/D converters and other devices, improving their sound via its low-jitter clock. This proprietary clocking technology gives our computer audio interfaces improved stereo imaging and better resolution on extended high and low frequency audio tracks.

Output Routing (Patch Bay)

Dealing with the software routing of audio interfaces can sometimes be a big hassle. So Aardvark took a photo of the back panel, and gave easy to use drop down menus to select what you want routed. This includes analog through to the outputs (Analog 1-8), any of the playback tracks (Playback 1-10), generating a tone and using the stereo output of the Control Panel's Monitor Bus (MONITOR).

Logo Brightness Control

One of the coolest features of the Q10 is that the power LED's brightness, on the front in the shape of the Aardvark logo, can be controlled from the DSP Control Panel to match your studio's light level. Even the phantom power button on the front activates both an LED on the front of the unit and one in the control panel.

Q10 Software Features

The Q10 also sets itself apart from other interfaces by having a fully DSP powered software control panel. This control panel is packed with user friendly features, and is laid out just like an analog mixer with stereo monitor outputs. The hardware & software combination of the Q10 truly replaces every aspect of traditional analog mixers, except you get better sound and tons more flexibility with digital presets and routing.



Q10 Control Panel: — The brain of the Q10, the DSP powered Control Panel replaces an external hardware mixer, while still providing the real-time mixing and easy monitoring that you get with an analog mixer. And since it's powered by the powerful DSP processor on the PCI Card, mixing, monitoring and metering won't slow down your computer. Works in combination with the Q10 hardware to provide a total digital mixing solution that includes flexible routing, zero-latency monitoring, snapshot preset recall, input level trim, digital peak metering and is +4/-10 selectable.

The Control Panel can be seen as a 20 channel mixer with a 2 channel monitor output that is routed to 1/4" stereo line outs on the back panel, and a 1/4" front panel headphone out. Ten of the channels are from the physical 10 inputs of the box (8 analog and stereo digital), and the other 10 channels are from the software. Any combination of previously recorded audio tracks can be played back, mixed and monitored individually or in subgroups, while simultaneously recording additional audio tracks. The control panel even comes in 4 cool colors that you can change as often as you'd like. This lets you match it to your studio, or make life easy on the eyes during an all night recording session.

3-Stage Input Gain: The input trim (found at the top of each mixer strip on the Control Panel) provides up to 75dB gain on mic inputs. This gain is done in the analog stage (pre A/D conversion), just like an analog mixer. In contrast, most other audio cards provide the gain after the A/D, which dramatically increases the noise. The Q10 software avoids this by sending commands to the analog circuitry in the breakout box to get the best sound possible. Actually has 3 separate gain stages; m2 (Mic 2), m1 (mic 1), and L (Line level), which are each optimized for that particular gain range for the best possible sound.

ASIO Turbo Mode: Enhanced ASIO 2 driver provides some of the best latency performance in the industry. Down to 4ms or less with some applications such as software synths and VST instruments. Great for real-time performance.

ASIO Buffer Slider: Not only is the ASIO driver really efficient, but it has a unique 31-step ASIO Buffer Slider which lets the user dial in the exact buffer size that is optimal for the computer. No other card goes this far to get real-time performance.

Snapshot Preset Recall: Hitting the Presets button on the Control Panel activates the Presets window, which let you save an unlimited number of screen shots to recall at any time. This is particularly useful when you need to change the patch bay settings or the input levels for different studio sessions. It's also nice to save different or special mixes so you can get up and running in no time.

AARDVARK

DIRECT PRO LX6

COMPUTER HARDWARE

794

4-In/6-Out Audio Interface with Realtime DSP FX

Today's project studios need more than just a sound card. They need the same great sounding 24-bit/96kHz, multi-channel audio and DSP effects that the big guys have. Much more than just a sound card, the Direct Pro LX6 is a high-precision audio and MIDI interface that gives you everything that you need to record and playback professional audio on your computer. The intuitive user interface, professional monitoring capabilities and amazing sound quality make the LX6 a true recording revolution. Features include 4-in/6-out 24-bit/96kHz sampling capability, real-time DSP mixing & effects and a shielded PCI card to keep out computer noise. The built in S/PDIF makes flawless 24-bit digital transfers to outboard gear, and the integrated MIDI I/O makes it an ideal solution for audio & MIDI workstations. The powerful on-board DSP processor provides real-time, zero latency DSP effects and keeps your computer running lightning fast. There are also separate headphone and line outs for easy monitoring.



The LX6 and Direct Pro 2496 are compatible with almost all audio recording software including Steinberg Cubase VST/32 & Nuendo, Cakewalk Guitar Tracks Pro, Home Studio & Sonar, Emagic Logic Audio and Syntrium Cool Edit Pro 2000. Their 6 outputs and ultra low-latency performance make the Direct Pro LX6 and Direct Pro 24/96 a perfect match for software synths & samplers like Native Instruments, GigaSampler and Propellerheads Reason. Both also come bundled with a full version of Cakewalk's Pro Audio 9.0 recording software.

DIRECT PRO 24/96

4-In/6-Out Audio Interface with Realtime DSP FX and 4 XLR Mic Preamps



A truly professional audio interface for the project studio, the Direct Pro 2496 has all the features of the LX6 but adds XLR mic inputs and four mic preamps to combine all the pieces of a professional studio into one complete and easy-to-use 4-in /6-out system. Its four studio quality XLR mic preamps are quieter than most mixers and outboard mic preamps, with a THD+N of .002%, and can even be used as 1/4" line inputs for those looking to maximize studio quality and flexibility. The Direct Pro also offers 48v phantom power and 3-stage input level gain.

Headphone Output

They have a headphone out right on the front of the unit to give you all the control over your mixes. The headphone gain is easily adjustable via the DSP software, which also does the real-time mixing of 10 channels to help you create the perfect mix.

Shielded PCI Card

Only Aardvark provides custom shielding on our PCI cards. Both the breakout box and the PCI card are designed to be completely noise free. This extra shielding keeps harmful computer noise out of your precious audio to give a pristine, high quality sound.

S/PDIF Digital I/O

The 2 RCA connections on this PCI card provide the 24 bit, 96kHz digital in and out to your computer for lossless digital audio transfers from outboard digital audio gear. A must have for any pro or project studio.



www.bhphotovideo.com

AARDVARK

LX6 & DIRECT PRO 24/96

6 Analog Outputs

The rear-panel of the breakout box features four analog main outputs with 24 bit, 96 kHz +4dBu on 1/4" TRS jacks and 2 additional outputs on RCA jacks. All 6 outputs can be used simultaneously to take to a mixer or outboard effects units. These give excellent mix down flexibility and provide plenty of connectivity to the rest of your studio. The six outputs can also be used for surround sound mixing.

MIDI In/Out

Built-in MIDI interface lets you integrate MIDI instruments (synthesizers, drum machines, etc) into your digital audio system. The Direct Pro 24/96 breakout box features both a MIDI In and MIDI Out jack so you can send MIDI data to and from your favorite synth. And since the audio and MIDI are integrated in one box, your guaranteed perfect audio/MIDI synchronization.

Expandable

If you feel like expanding your Direct Pro 24/96 system, you can expand up to 4 units into one computer. In fact, all Aardvark audio interfaces can be expanded up to 4 units...mix and match! No other line of computer interfaces allows as much flexibility and expansion as the Aardvark Direct Pro Series.

Inputs

The LX6 has four 1/4" line level inputs, while the Direct Pro 24/96 has for combo inputs that accept either XLR mic or 1/4" line level inputs, or any combination of the two. This gives you the ultimate in flexibility, allowing you do all the work right in your computer.

4 Discrete Mic Preamps

Unlike other soundcards that use "mic-pre-on-a-chip" solutions, which are not discrete and can lack the clarity and definition needed for professional use, the mic preamps in the 2496 are a hand crafted, discrete transistor design that yields outstanding noise specs and pristine sound quality. They also have phantom power for condenser microphones. The mic preamps are shielded in the breakout box and combine with top of the line converters to deliver professional audio quality from the mic to your computer.

LX6 and Direct Pro 24/96 Bundled Software

The LX6 and 2496 set themselves apart by have a fully-DSP powered, user-friendly software control panel laid out just like an analog mixer with stereo monitor outputs. The hardware & software combination of the LX6 and Direct Pro 2496 replaces every aspect of having an analog mixer, audio interface, and 3 cool effects units, so you can monitor in real-time while recording direct to the computer with ZERO-latency! This frees up power for the native processor so you can record more tracks and use more plug-in effects processors.

The Control Panel replaces an external mixer, while still providing real-time mixing and easy monitoring. And since it's powered by the DSP processor on the PCI Card, mixing, monitoring and metering don't slow down the computer. Works in combination with the hardware to provide a total digital mixing solution that includes flexible routing, zero-latency monitoring, snapshot preset recall, input level trim, +4/-10 selectable I/O and true digital peak metering.

Control Panel

The Control Panel has complete mixing capabilities and is very easy to use. It can be seen as a 10 channel mixer with a 2 channel monitor output that can be routed to any of the 6 line outputs or the headphone output for monitoring. 6 of the channels are from the physical 6 inputs of the box (4 analog and 2 digital), the others are from the software. Any combination of previously recorded audio tracks can be played back, mixed and monitored individually or in subgroups, while simultaneously recording additional audio tracks from the LX6 or 2496. The panel comes in 4 colors, so you can match it to your studio, or makes life easy on the eyes during an all night recording session.



Compressor, EQ & Reverb

The 100% DSP generated Reverb/Echo, Compressor/Limiter, and Multi-band EQ let you add effects to incoming audio "on-input" while recording in real time with no-latency—just where you need it most! Choose between simply monitoring the effects while recording "dry" to multitrack software, or you may record DSP effects. You can also audition the effects individually with the effects bypass feature.

Snapshot Preset Recall

Save an unlimited number of screen shots to recall at any time later. This is particularly useful when you need to change the patch bay settings or the input levels for different studio sessions. Saving different preset mixes you can get up and running in no time.

ASIO Turbo Mode

The enhanced ASIO 2 driver provides some of the best latency performance in the industry. Down to 4ms or less with some applications such as software synths and VST instruments. Great for real-time performance. The ASIO also has a unique 31-step ASIO Buffer Slider which lets you dial in the exact buffer size that is optimal for your computer.

Output Routing (Patch Bay)

The patch bay allows routing of any input signal (as well as the DSP monitor mix) to any output (including the headphone output) in real time with no latency. You simply drag the source to where you want it to go. Tone and Silence signals can also be routed to any output for calibration purposes and system checks.

Cakewalk Pro Audio 9.0

The LX6 and 2496 are bundled with Cakewalk Pro Audio 9.0 multi-track recording and MIDI sequencing software. 28 tracks, 24-bit/96kHz support, real-time effects, MP3 enabled, import and sync digital video to audio, edit & print notation w/guitar tablature, real-time Guitar Fretboard display, time expansion/compression, audio-to-Midi Conversion, fade/envelope & crossfade, Direct X plug-in compatible, Parametric EQ, Reverb, Delay/Echo, Flange, Chorus, Pitch Shifting, Vintage Amp Simulation.



AARDVARK

AARK 24

COMPUTER HARDWARE

796

10-in/10-out Audio Interface with S/PDIF and ADAT I/O

The Aark24 is a professional quality 10 x 10 PC interface that is in use everywhere, from home project studios to the most modern advanced studios, making amazing digital recordings worldwide. The Aark 24 easily integrates into your studio with eight 24-bit A/D and D/A converters, stereo S/PDIF and ADAT sync/optical digital I/O, all shielded in a rugged rack-mountable external breakout box. Aark24's superior 24 bit converters assure every nuance of your audio is captured faithfully. The digital link to any ADAT or digital mixer enables you to keep your audio tracks in the digital realm and achieve the kind of fidelity your audio projects deserve.



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10 Inputs/10 Outputs

The Aark 24 has eight front-panel mounted, balanced TRS 1/4" analog inputs and outputs (individually switchable from +4 to -10 in the Control Panel software) connected to eight high-quality 24-bit A/D and D/A converters. The front panel of the shielded breakout box also features digital S/PDIF I/O, giving a high resolution 24-bit connection to digital devices such as external CD-burners.

ADAT Sync & Optical I/O

The rear-panel of the breakout box features ADAT optical and ADAT sync interfaces for professional recording flexibility. The optical I/O and ADAT Sync allow you to easily interface any ADAT or digital mixer to your PC.

Toslink

The Aark 24's fiberoptic jacks are software switchable to accept the popular two-channel TOSLINK format as well. This lets you fly in tracks optically from DAT and CD players and even allows you to edit your Sony MiniDisc so you can record in the field and then master & edit back home on your PC.

MIDI In-Out

Integrate MIDI instruments (synthesizers, drum machines, etc.) with your PC's digital audio system via the Aark 24's built-in MIDI interface. (Although Aardvark's digital interfaces don't synthesize MIDI data, the inactive interfaces are developed with the same high standard applied to their active interfaces.

Control Panel Software



The Aark 24's DSP powered Control Panel lets you meter each input and output signal, route any input or playback signal to any output, and create your own custom monitor mix with full level and pan control. Its all generated by the on-board DSP, so it won't slow down your PC's precious CPU resources! The monitor mix or any input signal can be routed to any

physical output of the Aark 24 breakout box via the digital patchbay. The patch bay allows the routing of any input signal (as well as the monitor mix) to any output in real time with no latency - true direct monitoring. Tone and Silence signals can also be routed to any output for calibration purposes.

ASIO Turbo Mode

ASIO drivers drastically reduce the latency inherent in PC-based audio systems. Low-latency, real-time integration makes the Aark 24 one of the most powerful workstations available. The ASIO control panel allows limiting of input and output channels, Direct Sound buffer size, ASIO buffer size and ASIO sample bit size. All assisting you in configuring your computer for optimum efficiency and the lowest latency possible.

Assignable Stereo Monitor Bus

Monitor any input or playback track with the click of a mouse. You can even mix, pan and level control each track independently as you're tracking or recording to disk!

Switchable I/O Levels

Switch from professional +4dBu to consumer -10dBv, one at a time or change all 8 inputs and outputs at once. This means that the Aark24 interfaces to any mixer, MIDI instrument, or outboard gear. The signal levels for each analog input and output can be switched between balanced and unbalanced levels in the Aark Control Panel.



EQUIPMENT LEASING AVAILABLE

AARDVARK

AARK 24

Word Clock Sync

Word Clock synchronization is standard on all professional digital audio gear and is used to keep "sample accurate" synchronization between all concerted digital audio devices in your studio. Aardvark's legendary reputation for high quality digital audio synchronization is prominently implemented in the Word Clock I/O, allowing seamless integration and rock-solid sync with other digital audio gear.

DSP Engine

The heart and soul of the Aark 24 is a powerful Motorola 56301 DSP engine. The DSP handles all the software extras that are included in the control panel like digital peak metering, mixing, panning, level control and the flexible output router. It also manages up to four Aark 24 cards in the same PC.

USB3

Portable USB Interface with Mic, Guitar and Line In

The perfect system for musicians and guitarists worldwide, the USB3 eliminates the need for an external mixer, sound card, guitar stomp box or even other recording software. The USB3 comes with everything needed to record, mix and play audio from any computer. Just plug it in and go. Extremely portable, you won't find an easier and better sounding audio experience on your laptop than the USB3—clean 24-bit converters, solid steel construction, premium mic preamp, brilliantly warm EFR Hi-Z guitar input and easy headphone monitoring.



Inputs/Outputs

Classic design includes easy access for headphones, mic & guitar input, stereo line I/O and knobs and sliders to control audio levels.

- ◆ Convenient 1/4" mic preamp captures the audio with absolute clarity and definition.
- ◆ Selectable EFR circuit (Enhanced Frequency Response) Hi-Z input adds extra warmth and clarity to any guitar or bass. The EFR lets guitarists connect directly into their computer and get a sound that adds clarity and "punch" to any high-impedance instrument, and warmly enhances the sound of electric guitar or bass.
- ◆ Stereo 1/4" line inputs and outputs give you full stereo I/O capability so you can record and play easier than ever before.
- ◆ The USB3 is powered from the USB bus of the computer. No extra power cord or bulky wall-wart adapter necessary.
- ◆ A clever mixing control surface allows for precise adjustments for all input and output audio levels. This gives you total control over your headphones, speakers and microphones, and gets you the best recording levels as well.

Highest Quality Sound

The USB3 sounds great because it uses high-resolution, 24 bit A/D converters so you're getting the most audio detail possible.

- ◆ Record at either 44.1 kHz for CD recordings, or 48 kHz when doing audio-for-video applications.
- ◆ Solid steel construction ensures proper shielding from magnetic and electrical interference—far surpassing built-in laptop audio, cheap sound cards and other plastic USB audio interfaces.
- ◆ Real-time input metering lets you maximize your input levels without clipping.
- ◆ Simultaneous Record/Playback feature lets you record and playback audio tracks at the same time, perfect for overdubbing, and it's enhanced by the high quality drivers which provide ultra low latency.
- ◆ Record Select switch allows separate monitoring of recording busses similar to working with an outboard mixer and sound card. This allows for up to 5 channels of low-latency monitoring for recording, mixing and playing back multiple tracks from any audio software.

Software Drivers

Record with one application, then transfer the audio files to another application and edit, mix and master to your heart's content.

- ◆ ASIO drivers get down to 4 ms latency and guarantee seamless integration with ASIO programs like Cubase, Emagic Logic, Bias, Native Instruments and Propellerheads. This means you get real-time performance with soft synths & samplers and can monitor with VST plug-in effects in real-time.
- ◆ Control your buffer settings to get the best performance from your computer. The TURBO, FAST and NORMAL mode each have specific buffer settings so you're guaranteed uninterrupted audio with the best latency possible.
- ◆ Bundled with Cakewalk Guitar Tracks 2 for the PC and Cakewalk Metro for the Mac. Everything you need to achieve professional results with the USB3, they are creative music production tools simple enough for novice users to start recording, editing and mixing their own digital audio and MIDI tracks right away, but powerful enough for the experienced engineer.

AARDVARK

AARDSYNC II

COMPUTER HARDWARE

798

Low-Jitter Master Clock for Digital Audio

The AardSync II is the master word clock sync generator of choice for professional recording studios throughout the world. Not only does it provide a common word clock source for the digital studio, but it has become legendary in the industry for its sonic benefits. Innovative, proprietary digital technology ensures exceptional jitter reduction in the critically audible region. The resulting pure and precise audio clock signal enables today's 24-bit A/D & D/A converters to operate more efficiently, improving their accuracy and resolution. The benefits of clocking to an AardSync II are immediate and spectacular.



Back panel has 4 BNC outputs, 2 AES/EBU outputs and a video input BNC. These outputs can be configured in several configurations via internal jumpers

FEATURES

All digital audio equipment needs some form of master clock to derive its timing reference or to operate at a desired sample rate. Because only one clock source can be the master clock at any given time, problems can occur when multiple digital devices are synced or "daisy-chained" together. These problems usually manifest themselves in audible "clicks and pops" and a general loss in audio fidelity and stereo imaging. As the sole master clock for the entire digital studio, the AardSync II solves these issues. It also gives the A/D and D/A converters a more accurate timing reference, causing them to operate more efficiently, which results in improved sonic clarity and stereo imaging. To sync to an AardSync II, each piece of digital equipment should be connected to the card's BNC Word Clock, SuperClock (256), or AES/EBU outputs. For larger studios, additional outputs to the AardSync II can be provided by Aardvarks Word Clock or AES/EBU distribution amps.

- ◆ Low Jitter improves A/D D/A resolution!
- ◆ Eliminates clicks and pops
- ◆ Multiple Clock Outputs
- ◆ AES/EBU sync, WC, 2X WC & Superclock outputs
- ◆ NTSC 4% & PAL .1% Sample Rates
- ◆ Problem Free Synchronization
- ◆ 2x Word Clock for 96 kHz / 88.2 kHz

What Does it Do

The AardSync II guarantees a sample-accurate sync lock between all digital audio gear in the studio, and will lock to video black burst if necessary. This means the audio workstation and everything connected to it will remain in perfect synchronization from beginning to end, recording to playback. The AardSync II can be set to generate 44.1, 48, 88.2 and 96kHz rates as well the standard Pull-Ups and Pull-Downs to easily handle film and video transfers. Keeps perfect sync between digital mixers, A/D/D/A converters, CD-Rs and DAWs. Compatible with digital audio gear from Digidesign, Avid, Mackie, Sonic Solutions, Tascam, Yamaha, and more.

What is Word Clock?

Word clock is a square-wave signal that is transmitted via a 75 Ohm BNC connector. A square wave alternates between high and low states, which makes it ideal as a timing reference. Because many devices can use word clock signals as their master timing reference, it has become a standard type of digital audio system clock.

Makes A/D Converters and Pro Tools Sound Better

When an A/D converter or Pro Tools 888/24 references the AardSync II's ultra low-jitter clock, it will sample the analog audio wave more accurately than when referencing to its own internal clock. This improvement in accuracy of A/D conversion results in:

- Increased clarity and definition for all musical instruments and voices.
- Bass frequencies become tighter, more focused and easier to place in the mix
- High frequency instruments sparkle and shimmer with clarity.
- Ambience, reverb and delay effects become easier to manage in the mix.
- Stereo imaging and separation between instruments is vastly improved
- Digital "harshness" becomes a thing of the past

Optional Racks:

19" Mono Rack: The 2U Mono Rack is a 2 space, 19" rack plate/rack tray enclosure that gives your Aardvark PC audio gear a truly professional look. The 2U Mono Rack is compatible with AardSync II, Sync DA, or Aard DDA flush in the center of the 2U rack.

19" Dual Rack: The 2U Dual Rack will mount any two AardSync IIs, Sync DAs, or Aard DDAs side by side in the same 2U rack.



ONE HOUR FREE PARKING

AT 349 W. 34th STREET (with purchase of \$100 or more)

AARDVARK

AARDDDA

1x6 AES/EBU Audio Distribution

The AardDDA is a 1x6 AES/EBU audio distribution amp that helps you avoid impedance mismatches, clock jitter & signal dropouts, and in general will make your digital life worry free. Combining the standard 1x6 AES/EBU I/O with the optional S/PDIF adapters, you can configure the input and the 6 outputs to perfectly match your setup. For example: S/PDIF input, 4 AES/EBU & 2 S/PDIF outputs. Or an AES/EBU input, 1 AES/EBU & 5 S/PDIF outputs.



AardDDA lets you easily interface any number of consumer and professional pieces of equipment easily and efficiently. The AardDDA can also distribute AES/EBU or S/PDIF sync ensuring worry-free digital audio and digital sync distribution. And since the AardDDA's transformer isolated outputs are also individually buffered you can not only distribute a clean digital audio signal to different devices, but over longer distances as well.

- ◆ 1 x 6 digital audio distribution
- ◆ Filters out ground loop noise
- ◆ No re-clocking.
- ◆ 6 individually buffered digital XLR (AES/EBU) outputs
- ◆ Channel Status: Source channel status is echoed
- ◆ Optional S/PDIF I/O adapter available

SYNCD A Word Clock Distribution



Because only one clock source can be the master clock at any given time in the digital studio, problems can occur when multiple digital devices are synced or "daisy-chained" together. The Sync DA solves this by providing 6 additional Word Clock outputs from a single clock source. It allows any digital device, such as the AardSync II master clock or a digital mixer to be the master clock in any given situation.

The Sync DA feeds Word Clock on 6 BNC outputs, allowing each piece of connected digital equipment to receive a separate feed and be in sync with the master clock device. Two of the outputs can be configured to SuperClock 256, if the Sync DA is receiving an

AES/EBU input. The SyncDA is a great way to expand the AardSync II's outputs, allowing larger digital audio studios to take advantage of its superior clocking technology.

Compatibility

Compatible with any digital audio device that has word clock or AES/EBU I/O, including:
Aardvark's AardSync II Master Clock Generator, Direct Pro Q10 and Aark 24
Digital Mixing consoles
Hard Disk multitrack recorders
Outboard A/D/D/A converters, CD-Rs

Features

Extremely low jitter distribution!
Makes any DAT, DAW or mixer the Master Clock
Distributes audio clock throughout the facility
Verify exact sample rate

Specifications

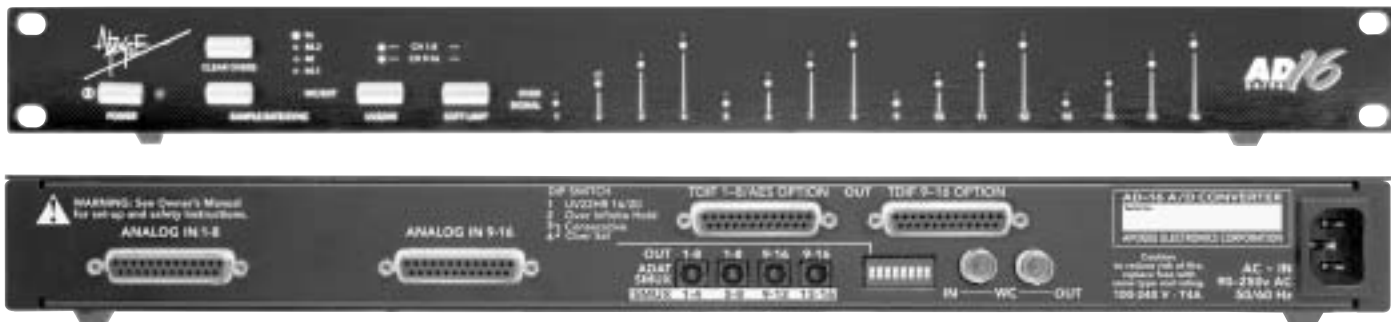
Clock Source Inputs:
Word Clock (BNC), AES/EBU (XLR)

Clock Outputs:
5 Word Clocks (BNC)
1 256 SuperClock (BNC)
1 AES/EBU Thru (XLR)

APOGEE DIGITAL

AD-16

16-Channel 24-bit/96kHz A-D Converter



An affordable 16-channel 24-bit/96kHz A-D converter, the AD-16's powerful multi-channel configuration makes it the ideal front end for many digital audio workstations as well as for surround applications.

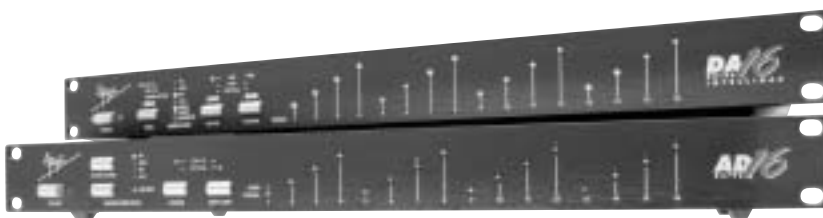
The system offers ADAT optical outputs and optional AES/EBU and TDIF, for compatibility with many digital audio systems, plus syncing to word clock or its own internal high stability clock. Apogee Word Clock output is also provided. Optical outputs on the AD-16 support the Sonorus S/MUX specification for sample-splitting of high sample-rate audio data into multiple ADAT-style optical interfaces. Additional light-pipe outputs are provided to deliver up to 96 kHz digital audio from all 16 channels in this mode. An expansion port allows the addition of optional TDIF or AES/EBU daughter cards.

FEATURES

- ◆ An elegant and effective user interface characterizes the AD-16, including a power switch, sample rate/sync selector, clear "overs" button, and two buttons for Soft Limit and UV22HR respectively. Designed to closely match its companion, the DA-16 (16-channel D/A) in appearance.
- ◆ Balanced analog inputs are organized into two groups of eight channels on 25-pin D connectors.
- ◆ LEDs indicate signal status on each channel, with the intensity modulated by the signal level to give an "analog-like" display. A second LED per channel indicates "overs", which may be user-configured. T
- ◆ Apogee's unique SoftLimit system maximizes digital output level without overs. These features are easily activated with a pair of buttons, and may be optionally applied to channels 1-8, 9-16 or all.
- ◆ Includes Apogee's industry-standard word-length reduction system, UV22HR. Reduce word length from the converter's 24-bits to 16-bit for CD mastering, Internet audio, etc, or 20-bit for DVD. High resolution detail is retained without creating artifacts.

- ◆ Rear panel DIP switches select regular ADAT versus S/MUX mode, over settings, UV22HR output resolution and infinite hold for the over indicators.

AD/DA-16 HD Pack—The Ultimate Pro Tools HD Upgrade



Put your money where your sound is... For a small percentage extra, you can audibly and significantly improve the quality of your Pro Tools HD system. The AD/DA-16 HD Pack gives you everything you need to add to a 192 Digital I/O. It includes the AD-16 (with AES Expansion card), the DA-16 and the special digital interconnect.

- ◆ Digidesign's 192 Digital I/O is a 24-bit, 192 kHz multichannel interface designed to allow the interconnection of digital audio sources with the Pro Tools HD environment. 16 channels of AES/EBU, TDIF and ADAT I/O, along with S/PDIF I/O.
- ◆ Connect the AD-16 and DA-16 to the 192 Digital I/O using AES/EBU at up to 96 kHz. A special cable, part number AES16-DIGI-IFC, makes the direct connection between the AD/DA-16 and the 192 Digital I/O.

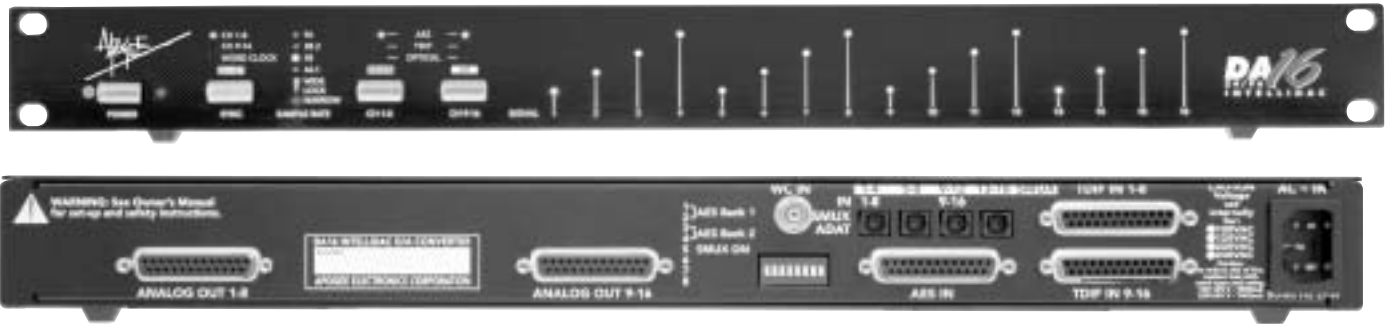


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APOGEE DIGITAL

DA-16

16-Channel 24-bit/96kHz D-A Converter



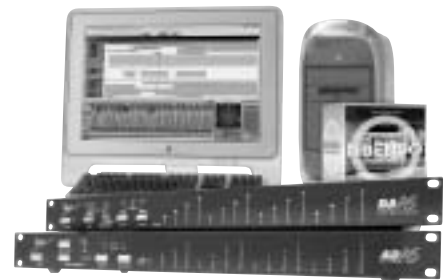
Designed to interface seamlessly with the latest hard-disk recording systems, the DA-16 'IntelliDAC' offers 16 channels of Apogee quality and 24-bit/96kHz D/A conversion in a compact, convenient 1RU package, at an exceptionally affordable price. The converters can source their digital input from either AES/EBU, ADAT optical or TDIF sources, and the unit can sync to word clock or a specified input. ADAT and TDIF inputs are organized into two groups of eight, and channels 1-8 and 9-16 can have different sources. In addition, the light-pipe inputs accept the Sonorus S/MUX protocol for sample-splitting high-resolution signals into optical interfaces, allowing access to all 16 channels -the first time this protocol has been included on an Apogee converter.

FEATURES

- ◆ Input sample rate is automatically detected, and a two-level "Lock" indicator shows "wide" (up to $\pm 150^\circ$) and "narrow" (5°) lock.
- ◆ LEDs indicate signal status on each channel, with LED intensity modulated by the signal level to give an "analog-like" display.
- ◆ Balanced analog outputs come in groups of eight channels on 25-pin connectors, in keeping with other Apogee D/A conversion systems using these connectors (the pinout is the same as on Tascam systems).
- ◆ "IntelliDAC" relates to the DA-16's unique "intelligent" two-stage re-clocking system. Apogee excels at removing jitter from the incoming clock signal, but for extremely jittery input sources, even more control is needed.
- ◆ The DA-16 does this by using two clocks. A fast-responding 'read' clock, with a wide locking range, fills a dedicated FIFO buffer, while an ultra-low-jitter 'write' clock writes the data out of the buffer, and is used to clock the converters. The advantage is that both incoming clock and data are now de-jittered.
- ◆ The system is also less sensitive to phase errors between synchronous digital sources. Errors up to $\pm 150^\circ$ can be corrected, substantially reducing the chances of glitching, and enabling the D/A converter to offer superior performance even with extremely unstable input signals.
- ◆ A calibration mode is also included, allowing quick and easy adjustment of the reference level for each channel.

NativeTools Studio Edition

The power of Nuendo; the sound of Apogee. The ultimate pro-audio combination! Combine Apogee's superb-sounding AD-16 & DA-16 16-channel 24/96 converters with the power of Steinberg's Nuendo workstation - on either Macintosh or PC - and you've stepped into a new world. That's Apogee's NativeTools: the ultimate combination of sonic quality, native processing power and value for money - all in one package. If you're looking for the ultimate pro-audio combination, NativeTools is the answer. Everything you need (except the computer) in one box for the complete DAW system that is taking the audio world by storm.



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APOGEE DIGITAL

MINI•ME

COMPUTER HARDWARE

802

2-Channel Mic/Instrument Preamp



The Mini•Me is a portable 2-channel 24-bit/96kHz A/D converter with built-in mic/instrument preamps, featuring a special low-power, wide range supply-voltage design for maximum flexibility. But this compact unit is not a toy. It is a professional audio product and delivers true Apogee professional-quality audio performance, from input to AES/EBU and S/PDIF digital outputs. And with a low-latency USB interface, you can use almost any software you choose. Other features include headphone out with level and Direct/USB Return Mix knobs, unique multicurve comp/limiter, and flawless 16- and 20-bit output using UV22 technology.

FEATURES

- ◆ Front panel feature left and right input level controls with a click stop at the far left that activates a preset line/cal level, set with multi-turn trimmers. Accurate LED indicators between the input level controls give a clear display of available headroom.
- ◆ Two-channel universal XLR/TRS mic and instrument inputs with preamps and phantom power, and line-level input. (Instrument input is automatically selected when you plug in a TRS jack.)
- ◆ A single control selects the sample rate and word length. The Mini•Me's converters output a full 24-bit signal at any of the standard rates: 44.1, 48, 88.2 and 96kHz sampling. In addition, select 16- or 20-bit outputs at 44.1 or 48 kHz using Apogee's industry standard UV22 HR system for word-length reduction.
- ◆ Even if the sample rates get mismatched between the Mini•Me and your computer, it will convert rates automatically. And if you select 24-bit on the Mini•Me and 16-bit on your recording software, the unit will apply UV22HR automatically to the USB output.
- ◆ Apogee has long been famous for their Soft Limit process, designed to maximize digital level without overs – but now they've added Push-IT – a unique three-curve stereo compressor/limiter circuit. It's ideal when you need extra punch, or require a safety net when making live recordings. This powerful circuitry takes Apogee's dynamics control to a whole new level – from the people who invented soft limiting.
- ◆ A comprehensive mono/stereo monitor section allows you to balance the direct sound you're recording with audio returned via the USB port.
- ◆ Low-latency USB interface carries two channels 24-bit/48 kHz audio to and from the computer for monitoring. ASIO drivers are also supplied for minimum latency.
- ◆ Includes AES/EBU and S/PDIF (RCA/coax) outputs which are available simultaneously, clocked by a high-stability reference crystal oscillator. Makes it the ideal master clock.
- ◆ Low power consumption makes it ideal for battery operation. The supplied power unit supplies 12v, but the Mini•Me will run on AC or DC from 6 to 16 volts.

MINI-DAC

2-Channel 192kHz D/A Converter



Following the huge success of Mini-Me Apogee's latest addition to their Mini Series, the Mini-DAC is a professional quality, 192kHz D/A converter—and the ultimate portable and compact solution for studio playback, reference monitoring, USB

connectivity to your DAW, and premium home audio systems.

Mini-DAC provides AES, optical (ADAT, S/MUX & S/PDIF) S/PDIF Coax, USB inputs, and analog output level control. Also included with Mini-DAC is "digital-thru-mode", a unique USB technology allowing the connection of non-USB digital devices to a computer/DAW.

- ◆ If you are using OS X version 10.2 or better, enjoy true plug and play with Apple's Core Audio. Simply plug Mini-DAC into your computer via USB and it will appear as a hardware option in Logic, Bias, Peak, and other Core Audio compatible DAW's.



EQUIPMENT LEASING AVAILABLE

APOGEE DIGITAL

ROSETTA

48k and 96k 2-Channel A/D Converters



Ideal for project studio recording and mastering, the Rosetta A/D is a 24-bit analog to digital converter with the most common digital interfaces as standard. Like the Rosetta Stone, discovered by Napoleon's soldiers in Egypt in the 18th century which provided the key to translating the mysterious hieroglyphs of the ancient Egyptians, Apogee's Rosetta A/D is the key to flawless translation of analog signals into multiple digital formats. And, the feature of the Rosetta A/D has been carefully tailored to project studio requirements—you don't pay for features you'll never use.

- ◆ Analog inputs operate at pro or consumer levels, balanced or unbalanced. The highest quality Apogee 24-bit conversion, at 44.1/48 kHz sample rates (standard version) or 44.1/48/88.2/96kHz, feeds two AES/EBU outputs so you can feed two machines at once (44.1/48 kHz version is upgradeable to 96kHz).
- ◆ Built-in ADAT, TDIF, and S/PDIF coax/optical interfaces (two of each)
- ◆ User-defined over indication
- ◆ Easy to use front panel. Every function has its own control, clearly labeled. Metering features easy-to-read bar-graph LEDs with oversize over indicators and you can determine how many consecutive digital full-scale samples constitute an over.
- ◆ Soft Limit technology lets you record at the maximum level without overs, while the high-resolution UV22HR process lets you generate flawless 16- and 20-bit masters retaining as much of the original 24-bit resolution as possible.

ROSETTA 800

8-channel, 24/96k A-D/D-A Converter (upgradeable to 192k)



The Rosetta 800 takes two of Apogee's most celebrated products and the latest in high-definition digital and combines them into one impressive package. The Rosetta 800 gives you eight channels of superior AD/DA conversion at sample rates of up to 192k, Apogee's "SoftLimit", "UV22HR", and their advanced "Intelliclock". The result is a premium digital recording solution that is built for the professional recording facility yet economical enough for the project studio.

All the features of the Rosetta A/D PLUS—

- ◆ 96k standard and optional 192k sample rates
- ◆ Optional Firewire card lets you connect natively to any Firewire input device, without additional hardware.
- ◆ Intelliclock is really two clocks in one. A fast-responding 'read' clock, with a wide locking range, fills a dedicated FIFO buffer, while an ultra-low-jitter 'write' clock writes the data out of the buffer, and is used to clock the converters.

"Digital-Thru-Mode"

These days, if you are doing digital, you need connectivity options. Through Mini-DAC's USB port, you can interface directly with your computer and virtually any DAW via. However, Apogee has expanded the advantage USB capability to offer what they call "digital-thru-mode". This gives the option of interfacing non-USB digital devices with your computer. To use, you simply set the Mini-DAC's input selector to "USB"... connect any two-channel digital device like Apogee's Mini•Me, Trak2, or Rosetta, and you have just USB enabled your favorite A/D converter and interfaced it with your computer/DAW. No other hardware required.

Precision Reference Monitoring

Are you using a massive mixer just to ride your monitor levels? Or do you have a great A/D but inferior D/A? Then make a little room for Mini-DAC. With comprehensive level control and a high quality headphone output you can hear exactly what you are committing to while recording. And when it is time to mix down, Mini-DAC provides the optimum stereo image and the most faithful analog reproduction of your carefully recorded digital audio that money can buy. Mini-DAC is also a great way to optimize your home audio system. Connect your premium CD/DVD player to Mini-DAC and then out to your speakers for a superb sonic experience that your discerning ears will appreciate.

Additional Features

- ◆ Inputs include AES (single & double wide), Optical (ADAT, S/MUX & S/PDIF), S/PDIF Coax, & USB
- ◆ Support for OSX Core Audio and USB drivers available for Windows XP
- ◆ Analog output level control for direct connection of powered monitors
- ◆ Low-current, low-voltage - ideal for location/ENG
- ◆ Stylish, compact and portable (5.5 x 10")
- ◆ 1/3 rack width with a 1U rack-mount kit available

APOGEE DIGITAL

TRAK2

COMPUTER HARDWARE

804

2-Channel Mic Preamp, DI and 24/96 Conversion System

Trak2 is the ultimate analog/digital combination.

With the Trak2, you have it all, in one compact single-unit rack space: superb mic pre; incredible A/D; any interface you need; digital routing; and behind it, Apogee's legendary name and reputation for the very highest audio quality available in the industry today.

Trak2 features the highest-quality 2-channel mic preamp on the market. ± 90 dB gain, front panel inputs, analog inserts/outputs and phantom

power. Behind the mic preamp is a full 24-bit/96 kHz, 117 dB dynamic range Apogee A/D converter. Built-in AES and S/PDIF interfaces, plus the ability to plug in cards for offer almost any interface you can imagine including Pro Tools, ADAT, TDIF and more. Plus there is optional video sync, optional 2- or 8- channel D/A cards with virtually the same incredible specs, eight-channel routing and format conversion, a serial/MIDI connection, a powerful software-controlled interface giving access to a host of advanced features, and firmware you can update over the Internet.



FEATURES

Superb Mic Preamp...

The Trak2's discrete mic preamp is accessible via rear panel XLRs or the front-panel universal XLR/TRS connectors. The sound of this preamp will have you using it on every session, analog or digital. The preamp also accepts hi-Z instrument inputs at the front panel, for maximum versatility. An insert point is included to provide an analog output or to allow the insertion of analog processors into the Trak2 signal path.

...incredible A/D

Apogee's award-winning 2-channel, 24-bit A/D converter operates at 44.1, 48, 88.2 and 96 kHz with a dynamic range over 117 dB. The A/D also includes Apogee's Soft Limit with digital adjustment control for maximum digital level without overs, and Soft Saturate with digital adjustment to simulate analog tape compression. Both can be switched in and out on one or both channels.

Add a D/A

A special slot for an optional 2- or 8-channel D/A card with specifications matching those of the A/D section, turns the Trak2 into a complete digital audio conversion system with two A/D channels and up to 8 D/A.

Interface Versatility

Two Apogee Multimedia Bus (AMBus) slots are provided in addition to the built-in AES/EBU and S/PDIF output to interface with Pro Tools, ADAT, TDIF, SDIF-II, SSL HiWay, etc. Many cards support Apogee Bit-Splitting, which enables you to use standard 44.1/48, 16-bit recorders to store 20-, 24-bit, and even 96kHz signals.

UV22 HR

Apogee's industry-standard UV22 HR (High Resolution) system takes a high-resolution digital signal and reduces the word-length to 16 or 20-bits for CD or DVD mastering while maintaining 24-bit detail. Trak2 also includes Apogee's Ultra-Low Jitter Clock, used to lock the unit to incoming digital or video signals and virtually remove jitter.

Front Panel

- Clear LCD display shows configuration and signal flow.
- Cursor controls/delta-wheel for fast settings changes.
- Programmable Quick Keys for instant access to frequently-used functions.
- Easy-to-read 2-channel LED bar metering
- User-definable over detection

Additional Features

- ◆ 10 to 8 Digital Routing
- ◆ Low/High settings for multi-pass and mastering operation.
- ◆ Adjustable Soft Limit with digital adjustment control for maximum digital level without overs.
- ◆ Soft Saturate with digital adjustment control simulates analog tape compression
- ◆ MIDI In/Out/Thru and serial port
- ◆ Programmable 'Quick Keys' for instant access to frequently-used functions.
- ◆ 96kHz Headphone D/A with high output 40W power amplifier.
- ◆ User saveable/recallable presets
- ◆ Video sync capability
- ◆ Clear LCD display shows configuration and signal flow
- ◆ Cursor controls/delta-wheel for fast settings changes
- ◆ Easy-to-read 2-channel LED bar metering
- ◆ User-definable over detection (1-4 digital full scale)
- ◆ Ideal companion for Steinberg's Nuendo system



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APOGEE DIGITAL

TRAK2

COMPUTER HARDWARE

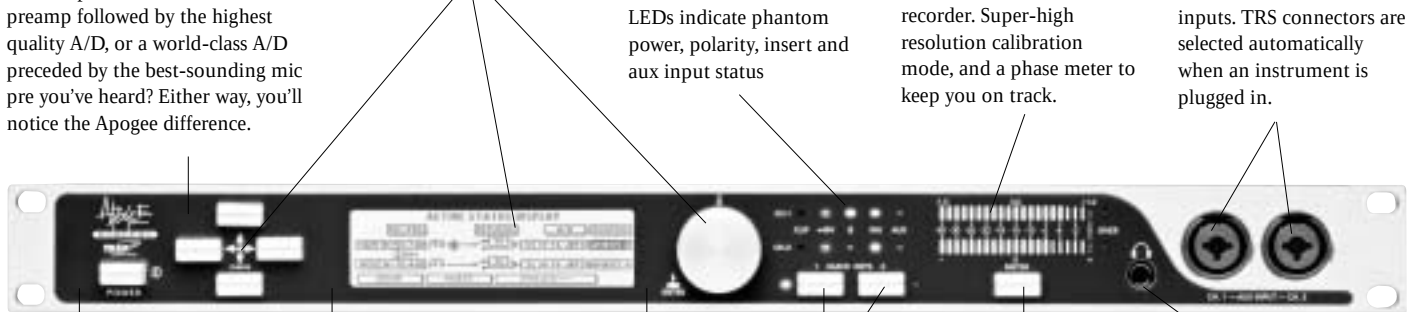
805

The Trak2 features Apogee's stunning 24-bit digital conversion. The quality of your A/D converter defines the quality of the entire digital signal from then on – so you need the best. Is it a superlative 2-channel mic preamp followed by the highest quality A/D, or a world-class A/D preceded by the best-sounding mic pre you've heard? Either way, you'll notice the Apogee difference.

The Trak2 is controlled from the large graphical backlit LCD display, which indicates signal flow and the status of the different parameters. Navigate with the cursor keys; change values with the delta wheel. Push the wheel to set the value.

Multi-segment, multi-mode peak/average LED meters give a clear indication of level, with user-defined over indication. Meter either before or after your recorder. Super-high resolution calibration mode, and a phase meter to keep you on track.

Front panel left and right connectors are universal XLR/TRS jack types and accept mic, line, balanced or unbalanced, –10 dBV or Hi-Z direct instrument inputs. TRS connectors are selected automatically when an instrument is plugged in.



Apogee's proprietary technologies are selectable on a per-channel basis. Soft Limit allows maximum level without overs; Soft Saturate adds the warmth and punch of analog tape compression.

Apogee's UV22HR system preserves maximum detail when reducing the Trak2's 24-bit conversion to 16- or 20- bit for CD or DVD. Low (multi-pass) or Normal (mastering) settings for maximum flexibility.

With an optional video card the Trak2 can be set to lock to PAL, NTSC and B&W video, with sample rate pull-up and pull-down.

Programmable keys provide instant front-panel access to any function in the Trak2. Each Quick Key can store two functions.

Selects the meter mode – peak, average, hold, etc – and clears the over indicators when required.

Built-in stereo monitor D/A and headphone amplifier allow instant checking of selected signal pairs passing through the unit.

Balanced or unbalanced, the mic preamp offers up to ±90 dB of gain, adjustable from the front panel.

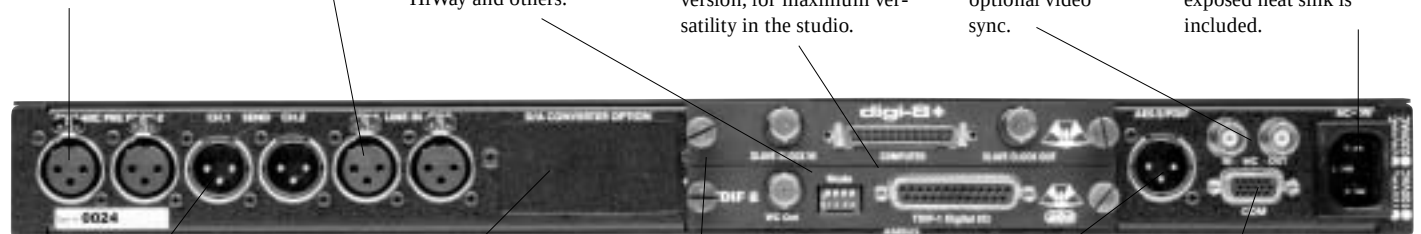
+4 dBu or -10 dBV, balanced or unbalanced, the line level inputs provide direct access to the A/D section.

Two 8-channel AMBus slots are provided, supporting cards like those in the AD-8000. Interfaces include a direct Pro Tools connection, ADAT, TDIF, SDIF-II (DASH), SSL HiWay and others.

All installed interfaces can be used simultaneously; any signal input to the Trak2 is output from all available interfaces. AMBus technology allows full 8-channel digital format conversion, for maximum versatility in the studio.

BNC connectors provide word clock to other devices, and synchronization to word clock in. The input is also used for optional video sync.

The super-smooth linear power supply is built around a custom toroidal transformer, minimizing interference and avoiding potential spikes and noise. A generously-specified exposed heat sink is included.



Inserts allow you to patch analog processing gear between the mic pre and the A/D converter, or to derive an analog output from the mic pre-amp alone for processing elsewhere.

Plug in a 2- or 8-channel D/A converter card to build a complete conversion system. Cards offer the same 24-bit capability and superb performance as the A/D.

With the Digi-8+ AMBus card, the Trak2 becomes a unique Pro Tools interface, communicating direct with the computer for super-quality performance.

AES/EBU &S/PDIF output irrespective of the presence of AMBus cards, enabling the Trak2 to be used straight out of the box.

High-density connector provides a serial connection for transferring firmware updates from the Internet, planned MIDI remote control capability, and more. Cable included.

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APOGEE DIGITAL

PSX-100

COMPUTER HARDWARE

806

2-Channel 24-bit/96kHz A-D/D-A Conversion System

Apogee's first 96kHz system, the PSX-100 offers many of the features of the Trak2 but without mic pre-amps and strict-



ly 2-channels. The PSX-100 is equipped with built-in ADAT, TDIF, S/PDIF coax and optical, plus multiple AES/EBU interfaces. It features Apogee's proprietary UV22HR word-length reduction system (which can be applied to either the A/D or the D/A) and SoftLimit for maximum level without overs. An auxiliary output allows a full-resolution output to be derived even when UV22 is in use on the main interfaces. The wide range of standard interfaces provided and the multiple AES I/O ports allow use for signal distribution and format conversion as well as for A/D and D/A applications.

FEATURES

Three Operating Modes:

- ◆ The PSX-100 has separate A/D and D/A sections which may be clocked separately and configured to work together in different ways. The digital inputs and the A/D output are fed into a routing section which sends signals to the D/A and Aux output or to the main digital outputs, depending on which modes is selected.

- In Confidence Monitor mode the A/D and D/A are independently clocked (and can even run at different sample rates). The output of the A/D is available at all the digital outputs, and the D/A can receive its signal from any of the available digital inputs. The bargraph metering can be switched between A/D and D/A. Two separate signal paths through the unit in this mode, other modes utilize a single path.

- Digital Copy mode takes the selected digital input and provides it to all the PSX-100's outputs, digital and analog. Both clocks in this mode are synchronized to the digital input. This mode is ideal for format conversion as well as offering the maximum D/A flexibility.

- In Analog Monitor mode, the A/D is fed to all the system outputs and to the D/A. The main clock is used as the reference (locked to crystal or an external digital source), while the auxiliary clock is slaved to it.

- ◆ Two channels of Apogee's true 24-bit A/D and D/A conversion with 117 dB dynamic range. Level trim of A/D and D/A levels via easy screwdriver adjustment for instant calibration and gain structure alignment.
- ◆ Apogee quality at 44.1, 48, 88.2 and 96 kHz
- ◆ Built in interfaces include AES/EBU, ADAT, TDIF and S/PDIF (coax and optical)
- ◆ Balanced or unbalanced analog I/O
- ◆ Exclusive active self-balancing analog I/O
- ◆ Gold-plated XLR jacks for analog and AES/EBU I/O, RCA jacks for S/PDIF I/O
- ◆ AES/EBU distribution amplifier capability
- ◆ Monitor the A/D output or select S/PDIF coax or optical; ADAT; TDIF or either of two AES/EBU inputs (one AES input at 88.2/96kHz sampling). Synchronize the D/A to digital in or to the A/D sync source.
- ◆ Apogee Soft Limit helps you record at a higher level without overs
- ◆ Easy-to-read light-bar metering, includes "over" indication with 2-second/infinite hold. User-defined "over" setting (1-4 consecutive digital full-scale readings). Meter the A/D or D/A in "confidence mode". Calibrate with ± 0.1 dB setup accuracy.
- ◆ Individual L-R channel muting at the touch of a button, instantly controlling the signal from the main digital outputs.

- ◆ Two proprietary Apogee low-jitter master clocks
- ◆ Optional video sync card allows the PCX-100 to lock to NTSC/PAL video
- ◆ Apogee Bit-Splitting (ABS) modes allow the two-channel 24-bit signal to be recorded using pairs of tracks of a 16-bit 44.1/48kHz sampling recorder, via ADAT, TDIF or AES/EBU. In ABS-96 mode, you can record stereo at 96kHz sampling on a 16-bit 8-track.
- ◆ UV22HR encoding process translates 24-bit signals to 20 or 16-bits with no quality loss (Not on 88.2 & 96kHz sample rates).
- ◆ Word Clock I/O on BNC connectors. The WC input socket can act as a video input when the video option card is installed.
- ◆ A 10-way DIP switch allows 'set-once' parameters for analog input/output level; pin 2/3 hot; 2-second or infinite 'over' indication; 'over' definition; ABS enable on AES input and special sync parameters.
- ◆ MDM input selection lets you select the pair of tracks you want to listen to (or the set of tracks for replaying a bit-split source).
- ◆ Special Edition (PSX-100SE) available with upgraded op-amps, along with additional level of power supply filtering. The D/A section includes a new third-order Bessel filter, the A/D includes a specially-designed anti-alias filter that smooths top end response.



EQUIPMENT LEASING AVAILABLE

APOGEE DIGITAL

BIG BEN

Studio Master Clock and Word Sync Distributor

For years audio professionals have been asking when Apogee was going to make their legendary

clocking technology available as a stand-alone master clock. Introducing Big Ben, a radical new studio timepiece that will set the pace for all master clocks to come.



FEATURES

C777 Clock Technology up to 192kHz

At the heart of any word clock regeneration is a phase lock loop (PLL). Currently, and most commonly in audio applications, the PLL is a combination of analog and digital elements without the ability to dynamically adapt to the nature of the external clocks. That's where Apogee's C777 clock comes in. The C777 utilizes an entirely digital process, that Apogee has developed using the most advanced Direct Digital Synthesis (DDS) technology available along with DSP based digital filtering. The result? The most aggressive jitter reduction ever. With a stable, crystal based digital PLL ticking away as it's heart, Big Ben is able to intelligently manipulate incoming signals and adapt to them accordingly.

Intelligent Clocking with Adaptive Loop Filtering (ALF)

In digital audio, as in comedy, timing is everything. But if your audio path has got the jitters that's no laughing matter! Enter Apogee's exclusive Adaptive Loop Filtering technology. ALF maximizes Big Ben's clocking ability with an intelligent low pass filter. Because the C777 has made all incoming signals into data (1's and 0's) Big Ben is able to dynamically compensate for excessive jitter and even improve already acceptable clock signals to levels unattainable until now. No matter what your input looks like, ALF can adapt and overcome all obstacles to create a stable, reliable, low jitter clock source.

Realtime Format Conversion

- ◆ Not that you would dare expect it from a master clock, Big Ben gives you realtime format conversion between all digital formats. Use Big Ben's intuitive digital display to go from S/PDIF to AES/EBU, AES/EBU to ADAT, ADAT to S/PDIF, etc.
- ◆ AES, S/PDIF, Optical I/O - Word Clock/Video In - 6 Word Clock Outs
- ◆ Optional Firewire connection to facilitate clocking and format conversion with other Firewire devices

"SureLock"

What happens when Big Ben encounters the ultimate disturbance in clocking, a dropped signal? With "SureLock" Big Ben will compensate by remaining locked on the last relevant frequency sent by the delinquent device. When the signal resumes, Big Ben will gradually, and smoothly re-synchronize without interruption.

Termination

Another feature to help you stop watching the clock is Big Ben's termination sensing ability. Very often in an elaborate audio chain word clock signals are improperly terminated. Big Ben will chime in with a visual indication of over or under termination on it's digital display for each word clock output, allowing you to troubleshoot more quickly and get back to business.

Inputs:

- 2 x AES/EBU on XLR 44.1-192kHz single-wide and 88.2 k-192k double-wide.
- S/PDIF optical on TOSLINK 44.1-48k
- S/PDIF coaxial on RCA 44.1-192k
- ADAT 44.1-48k
- ADAT/SMUX II for 88.2-96k
- ADAT/SMUX IV for 176.4-192k
- Word Clock BNC 44.1 -192k
- Video
- Firewire card option provides clocking and format conversion functionality to Firewire equipped devices.

Outputs:

- 2 x AES/EBU on XLR single or double wide 44.1-192k
- S/PDIF coaxial 44.1-192k
- S/PDIF optical on TOS-LINK 44.1-48k
- 6 x BNC Word Clock 44.1-192k (of which 2 can output 256fs at low sample rates)
- ADAT
- SMUX II/SMUX IV
- Optional Firewire

Specifications:

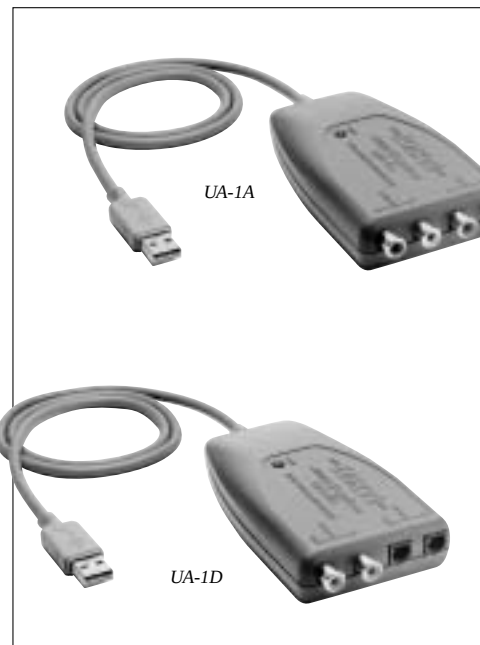
- Sample rates: 44.1, 48, 88.2, 96, 176, 192kHz
- Video: PAL/NTSC/60Hz
- "SuperClock" (256fs)
- Pull up/down 0.1% and 4% from any sample rate
- Three stage termination indicator (under, correct, over) on each Word Clock output
- 4 digit numeric true sample rate indication

UA-1A/UA-1D

USB Audio Capture Interfaces

The UA-1A (analog) and UA-1D (digital) are straightforward USB audio I/O devices that turn your USB-equipped computer or laptop into a digital audio recorder— quickly and easily. Convenient USB connection provides clean digital data transmission as well as power – they are completely powered by the USB bus. And they are MME (WIN) and Sound Manager (Macintosh) compatible, so they will work with a host of digital audio recording software packages for both Mac and Windows.

The UA-1A is a mouse-sized device for analog input/output. Internal D/A and A/D converters operate at 16-bit/44.1kHz. A pair of stereo RCA input/output connections allows you to capture audio from CD players, keyboards or any analog device with line level output connections. The UA-1D Digital Audio Capture comes in a similar package, but offers both optical and coaxial S/PDIF digital connection, allowing you to connect any S/PDIF device, including component CD recorders, MiniDisc players/recorders, digital home receivers, DAT, etc. The UA-1D is also packaged with WinDVD so you can send Dolby Digital or DTS encoded audio to your home theater system.



UA-20

24-bit USB-powered Audio & MIDI "Dual" Interface

A complete USB audio recording device, the UA-20 brings portable 24-bit quality to your Mac or PC applications. Your laptop audio is now 24-bit resolution, powered by your computer through the USB bus, and flexible! Easily connect your guitar, mic and line level input with the portable and affordable UA-20.

- ◆ Two Line/Guitar/Mic inputs
- ◆ Two line (RCA), S/PDIF (optical) outputs
- ◆ Fast and stable 1x1 MIDI input/output with FPT
- ◆ Direct Monitoring function allows for low latency performance while recording.
- ◆ ASIO 2.0 (Win/Mac), MME, WDM drivers and Sound Manager (Mac) compatibility lets you create music with any music software program for Mac or PC.
- ◆ USB connection supplies power as well as data
- ◆ Headphone (1/8") jack and volume control

FPT (Fast Processing Technology)

FPT is a technology that allows for high speed, high resolution MIDI data transmission. Using a combination of driver and hardware improvements to take advantage of the high-speed extensive transmission capability of USB, FPT can deliver high speed, low latency, low jitter MIDI transmission across multiple ports, while maintaining high data resolution.

Driver tuned for FPT

The driver for FPT-based hardware devices uses an optimal transmission method depending on the amount of MIDI data being transmitted. The driver then effectively utilizes the bandwidth of USB (depending on the amount of MIDI data) allowing communication to be stable and very fast.

Hardware tuned for the FPT

FPT also allows for high speed, high resolution processing through hardware using HDMR.

The high speed transfer capability of FPT allows for high resolution data transfer without compromising the performer's subtle expressions even in live performance.

UA-3D

Portable USB Audio Interface with 5.1 Surround Sound Output

USB connectivity brought a revolution in audio interfaces for your computer. Now, Dolby Digital and DTS brings surround as well! The UA-3D allows transfer of 5.1 digital data from your computer via USB to an outboard decoder for a full theater-style listening experience. The UA-3D is a portable, palm-sized USB audio interface, ready to use on both desktop and laptop computers. It features inputs for analog line signals, S/PDIF digital (optical), Hi-Z guitar preamp and 1/8" minijack selectable dynamic/condenser mic.

Includes Win DVD playback software and Cool Edit Pro LE for audio recording and editing. USB cable provides power and computer interface with no need for batteries or power adapter.

- ◆ Two RCA analog and S/PDIF digital (optical) input/outputs
- ◆ Guitar and microphone inputs
- ◆ High quality sound with USB audio capture and UA-3D's A-D and D-A converters
- ◆ Bundled WinDVD and Cool Edit Pro LE (Windows) lets you enjoy surround sound and experience theater style movies. (DVD-ROM and a DTS or Dolby Digital decoder is required for 5.1 surround sound.)
- ◆ Ideal for laptops, the UA-3D receives power supply from the computer via USB cable. No need for AC adapter. Connect your audio equipment to your Mac or PC with the UA-3D and just one USB cable.



COMPUTER HARDWARE

809



UA-5 Compact 24-bit/96kHz Processing USB Audio Interface

Compact and stylish, the UA-5 is a complete USB audio recording system. Ready for use on both desktop and laptop computers, it provides the widest range of inputs, including phantom-powered

mic inputs, optical and coaxial S/PDIF, and a Hi-Z guitar preamp. A comprehensive array of switches and buttons on the front panel allows for extremely fast and intuitive operation, ranging from gain control, sample rate switch and a unique Advanced mode (ADV) which enhances the hardware performance of the UA-5 when used ASIO or WDM enabled software.

- ◆ Two front-panel 1/4" TRS input connectors (XLR, Guitar, balanced/unbalanced)
- ◆ Two 1/4" TRS outputs (balanced or unbalanced) and stereo line (RCA) output
- ◆ Coaxial and optical S/PDIF I/O
- ◆ ASIO (Windows/Mac), MME, WDM drivers and Sound Manager (Mac) compatible
- ◆ 48v phantom power
- ◆ Unique switch for both native (ASIO) and generic drivers to enhance accuracy in recording environment with low-latency
- ◆ Direct monitoring function allows for zero-latency performance while recording/overdubbing
- ◆ Portable design, offers easy connection to computer through a single USB cable
- ◆ Self-powered via USB when not using phantom power or Advanced Mode
- ◆ Compatible with most sequencer/audio recording software programs

UA-700



24-bit/ 96kHz USB Digital Audio Interface with COSM Technology

Simply call it "The Everything Box", because that's just about what it has. The UA-700 combines a high resolution USB audio interface with a built-in effects processor and MIDI Interface into one home studio recording powerhouse. Plus, it has the power of COSM- Composite Object Sound Modeling, so you can tweak that mic to be just the way you want it. It even works as a standalone effects processor. Be careful- if you get your hands on it, you'll be hooked!

FEATURES

Versatile I/O Capability

- ◆ Two combo inputs, XLR/phones, +48v phantom power for condenser mic
- ◆ Input for guitar
- ◆ RCA Line/Phono input and RCA output
- ◆ Optical/coaxial S/PDIF input & output
- ◆ Low latency with Direct Monitoring
- ◆ ASIO 2.0 (Win/Mac), WDM (WinXP/2K), and Apple's Sound Manager compatibility

System Effects Section

- ◆ The UA-700 has a wide variety of effects processors including Noise Suppressor and Equalizer, that are indispensable for computer recording. Other effects include Reverb and Chorus to make it sound like you recorded your music in a concert hall.
- ◆ AUX effects: Center cancel
- ◆ System effects: 3-band EQ, Noise suppressor, Reverb (5 types), Chorus

Microphone Section

- UA-700 combines Mic modeling engine of COSM technology. Control five kinds of high-quality microphone sounds with various characteristics. Features its original preset compressor for mic recording and also de-esser, a must for vocal recording. (Guitar/Mic effect cannot be used simultaneously).
- Reference Microphone: DR-20, Small Dynamic, Head-worn Dynamic, Miniature Condenser, AKG C3000B, Flat
 - Modeling Microphone: Small Dynamic, Large Dynamic, Small Condenser, Large Condenser, Vintage Condenser, Flat
 - Preset type compressor: Normal, Vocal, Kick, Snare, Kit, Acoustic guitar

UA-1000 High-Speed USB Audio Recording Interface



Ideal as the centerpiece of a project studio and equally at home in your mobile studio, the UA-1000 is the world's first multi-port Hi-Speed USB (USB 2.0) audio recording interface. It delivers exceptional audio capabilities on 10 separate channels via a wide variety of connections, offering high quality microphone preamps using premium analog components. These include XLR/TRS combo jacks, Hi-Z guitar, S/PDIF, 8 channel ADAT, MIDI, and even inserts for effect send/return.

- ◆ Hi-Speed (480 Mbps) USB 2.0 support allows the UA-1000 to offer 10-in/10-out 24-bit/96Khz full duplex performance
- ◆ 4 front-mounted XLR/TRS combo jacks, with phantom power
- ◆ High quality microphone preamps
- ◆ S/PDIF (optical/coaxial), ADAT, MIDI, Word Clock
- ◆ 4 inserts I/O for effects sends and returns
- ◆ Zero latency direct monitoring
- ◆ Striking blue 1U high metal rackmount

Guitar Section

- Powerful COSM engine provides a wide range of guitar sounds from heavy distortion with tube amp to soft distorted crunch-sound or clean sound. Sounds include delicate tone control of volume and picking. Tweak 11 guitar-amp sounds from every guitar sound in history with effect knobs.
- Amp modeling: JC Clean, Crunch, Lead, Black Panel, Tweed, American and Brit Combo, Vintage, Modern and Metal Stack
 - Speaker Cabinet type: Original, 4x12", 4x10", 2x12", 1x12", OFF
 - Guitar effects: Flanger, Tremolo, Phaser, Delay, Compressor

24-bit/96kHz 8-in/8-out Digital Audio Interface



The DA 2496 is a rack-mount system with a whole host of connections to help your computer become the center of your recording studio.

Whether you are running to your computer from an outboard mixer or directly

plugging your instruments into it, the DA-2496

is the best way to get from the instrument to the computer. Record

multiple instruments, vocals and performers—each on their own track—all at the same time. Balanced and unbalanced inputs with individual gain control and 48v phantom power as well as digital audio connectors are conveniently located on the front and rear panel. Furthermore, the inputs on the front of the unit can supercede the inputs on the back. So if you have your DA 2496 setup in your rack but want to plug a bass directly into one of the Hi-Z inputs on the card, (no need for a direct box) you don't need to unplug the back of the unit.

- ◆ Up to 24-bit/96 kHz AD/DA conversion
- ◆ Up to 8-in/8-out simultaneous multi-track recording on PC and Mac via PCI interface.
- ◆ Multiple choice of balanced TRS connectors, including mic inputs with 48v phantom power and +4/-10 dB operation
- ◆ Direct input for guitar (Hi-Z)
- ◆ Optical/coaxial S/PDIF input/output on dedicated channels
- ◆ MIDI in/out
- ◆ Quick access to digital input sources on front panel—great for CD/MD/DAT inputs
- ◆ Full compatibility with the most popular sequencer/audio recording software
- ◆ Word clock synchronization via BNC input/output
- ◆ ASIO2.0 (Windows/Macintosh), MME WDM drivers and Sound Manager (Macintosh) compatibility
- ◆ 1U-rack mount type break-out box & PCI interface card

	UA-1A	UA-1D	UA-20	UA-3D	UA-5	UA-700	DA-2496
Main Function	Digital Audio Interface	Digital Audio Interface	Digital Audio Interface 1-in/1-out MIDI Interface	Digital Audio Interface	Digital Audio Interface	Digital Audio Interface with effects	Multiple 8-in/8-out Digital Audio Interface
Unique Feature	Cable style	Cable style	Cable style	5.1 channel Surround Dolby Digital output	24-bit/96 kHz	COSM effects controlled all by knobs	24-bit/96 kHz Word clock sync IN/OUT
Connection to Computer	USB	USB	USB	USB	USB	USB	PCI bus
System Compatibility	WindowsXP/Me/98/2000, Mac OS 9.0.4 or later						
Channels	1 Stereo Record, 1 Stereo Playback, Full duplex						8 inputs, 8 outputs Full duplex
Signal Processing	AD/DA 16-bit		AD/DA 24-bit	AD/DA 16-bit	AD/DA 24-bit	AD/DA 24-bit	AD/DA 24-bit (int. 36 bit)
Sample rate	AD/DA 44.1 kHz	Digital In 32/44.1/48 kHz Digital Out 48 kHz	Digital Out 44.1 kHz	Digital In 32/44.1/48 kHz Digital Out 44.1 kHz	Up to 96 kHz	Up to 96 kHz	Up to 96 kHz
Audio Driver Compatibility	MMe, Sound Manager	MME, Sound Manager	ASIO2.0 (Win/Mac), WDM, MME, Sound Manager	MME, MME, Sound Manager	ASIO2.0 (Win/Mac), WDM, MME, Sound Manager	ASIO2.0 (Win/Mac), WDM, MME, Sound Manager	ASIO2.0 (Win/Mac), WDM, MME, Sound Manager
Inputs	Line (RCA pin) x2	S/P DIF Coaxial/Optical	Line/Guitar/Mic x2	Dynamic or Plug-In powered mic x1 Guitar (Hi-Z) x1 Line (RCA pin) x2 S/P DIF Optical	TRS Balanced/Unbalanced XLR/Phone combo with Phantom power x 2 Guitar (Hi-Z) x 1 Line (L/R) Standard Jack S/P DIF Coaxial/Optical	TRS Balanced/Unbalanced XLR/Phone combo with Phantom power x 2 Guitar (Hi-Z) x 1 Phono or Line (1/4" phone) x2 Aux Line (RCA pin) x2 S/P DIF Coaxial/Optical	TRS Balanced/Unbalanced XLR/Phone combo with Phantom power x 2 Dynamic mic x2 TRS Balanced/Unbalanced 1/4" phone x 6 Guitar 1/4" (Hi-Z) x 2 S/P DIF Coaxial/Optical
Outputs	Line (RCA pin) x2	S/P DIF Coaxial/Optical	Line (RCA pin) x2	Line (RCA pin) x2 S/P DIF Optical Headphones (mini-stereo) x1	Line (1/4" pin) x2 Line (RCA pin) x2 S/P DIF Coaxial/Optical Headphones (1/4" phone) x1	Line (1/4" pin) x2 Line (RCA pin) x2 S/P DIF Coaxial/Optical Headphones (1/4" phone) x1	TRS Balanced/Unbalanced 1/4" phone x 8 S/P DIF Coaxial/Optical Headphones (1/4" phone) x1
MIDI Interface			IN x1/OUT x1			IN x1/OUT x1	IN x1/OUT x1
Bundled Software		WinDVD	Drivers (Win/Mac)	WinDVD, Cooledit ProLE	Drivers (Win/Mac)	Drivers (Win/Mac)	Drivers (Win/Mac)

'STUDIO CANVAS' SD-20

USB Bus-Powered MIDI Sound Module

A compact, portable, USB bus powered MIDI solution—perfect for your laptop—the SD-20 gives you the right number of sounds, and works with your computer no matter what its age: you can connect through USB or serial ports. And its compact size makes it easy to connect and create anywhere.



- ◆ 32-part, 64-voice polyphony
- ◆ Complete studio module including 32-part MIDI synthesizer and 64-voice polyphony for sequencing, karaoke, huge orchestrations and more
- ◆ GM2/GS/XGlite 660 tones, 23 drum sets
- ◆ Optical Digital Output (S/P DIF)
- ◆ The standard GM2/GS/XGlite compatible sound selections provide a variety of music genres such as classical, contemporary, pop and beyond. Play the realistic instruments tones from Grand Pianos, Rippin' Guitars, Jazzy Sax and Ethnic Drums!!
- ◆ Optical digital connection allows for exceptional MIDI sound quality output not found on any sound module in its price range.
- ◆ USB bus powered, adapter free
- ◆ USB connection supplies power as well as data. The convenience of having all the mobile elements of music production.
- ◆ Easy connection to computer (Serial / USB)
- ◆ Legacy compatible with serial computers or simply connect through USB for Mac

'STUDIO CANVAS' SD-80

USB MIDI Sound Module and Synthesizer



A high performance MIDI sound generator with a powerful synthesizer engine and high quality waveforms in one slim body, the SD-80 is equally at home on your desktop or in a rack. Edirol started with a footprint that accommodates either application, added tons of connection options like USB, digital S/PDIF (coaxial and optical) interface and 1/4" phone jacks, then made sure

the sounds were just right—all 1050 of them. For flexibility, you can even run specific MIDI channels through assignable audio outputs for outboard effects processing to make the sound all your own.

- ◆ World leading technology of synthesizer sound engines and high quality waveforms (including the same wave ROMs as SD-90)
- ◆ Fast and stable MIDI data transmission realized by FPT (Fast Processing Technology of MIDI transmission)
- ◆ GM2/GS/XGlite compatible
- ◆ 32-part, 128-voice polyphony
- ◆ 1,050 tones, 30 drum sets, 3 MFX (90 types)
- ◆ Rack-mounted for studio use, or vertically mounted for desktop use
- ◆ Optical/Coaxial Digital output (S/P DIF)
- ◆ SD-80 Editor software included (Win/Mac)
- ◆ 2-stereo/4-mono multi-outputs
- ◆ 2-port external MIDI IN/OUT
- ◆ Letter sized design measures 11 $\frac{1}{16}$ x 10 $\frac{3}{16}$ x 1 $\frac{13}{16}$ " (WxDxH)
- ◆ Internal Sound Sets Sound Maps: 6 (Classical, Contemporary, Solo, Enhanced, Special 1, Special 2)
- ◆ Preset Sound Instruments: 128, Drum Sound Sets: 8
- ◆ System Effects: Reverb (6 types), Chorus (6 types)
- ◆ Insertion Effects: Multi-effects x 3 (90 types)
- ◆ Display: 20 characters, 2 lines (backlight LCD)

Bundled SD-80 Editor Software

The SD-80 ships with a powerful software editor that controls the SD-80's sound parameters by a graphical interface. The editor provides control over tone editing, patch changes, and effect parameters that can be preserved. (SD-80 has a built-in memory for preserving "user patches". Editor is Mac and Windows compatible.



'STUDIO CANVAS' SD-90

USB Audio Interface and MIDI Tone Module

The SD-90 effectively integrates in one unit a top-quality MIDI synthesizer, a complete USB digital audio interface, and powerful Digital Signal Processor — ideal for musicians using original tracks as their backing band, as well as for composers and remixers who can take advantage of its user-friendly environment. Through a simple USB connection to your computer, the SD-90 allows you to play MIDI instruments, record your own original audio from a microphone or a guitar, and process all your music content with a professional effects generator, just like you would in a studio. Works with most multi-track audio and MIDI recording software for Mac and Windows.

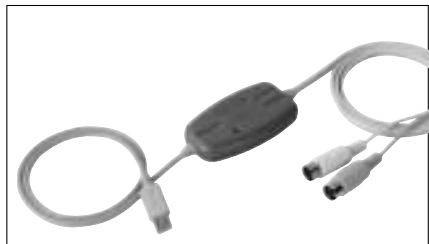


- ◆ 24-bit AD/DA converters
- ◆ 2 input - 2 output MIDI connections
- ◆ Optical/coaxial S/P DIF input and output jacks plus 1/4" discrete microphone/guitar inputs
- ◆ Fast and stable MIDI data transmission realized by FPT (Fast Processing Technology of MIDI transmission)
- ◆ MIDI with 1,050 instruments, 36 drum sets (128 polyphony, 32 multi-timbral)
- ◆ GM2/GS- compatible rich sound source selections
- ◆ Guitar, vocal, ambience and mastering effects for audio
- ◆ ASIO2.0 (WIN/MAC), MME (WIN), WDM (Win2000), Sound Manager (MAC)

	SD-20	SD-80	SD-90
Main Function	Sound Generator	Sound Generator	Sound Generator and USB Audio
Unique Feature	GM2 Format USB bus powered	Letter size design; Rack-mount type Character LCD(20x2)	GM2 Format
Connection to Computer	USB, MIDI, and Serial	USB and MIDI	USB and MIDI
System Compatibility	WindowsXP/Me/98/2000; MacOS/OS X	WindowsXP/Me/98/2000; MacOS/OS X	WindowsXP/Me/98/2000; MacOS
Instruments	660	1050	1050
Drum Sets	23	30	30
Voice x instrument	4-voice	4-voice	4-voice
Parts	32	32	32
Max polyphony	64	128	128
DSP	Reverb (6) Chorus (6)	Reverb (6); Chorus (6) 2 band EQ; Insert FX (90 types) x 3	Reverb (6); Chorus (6) 2 band EQ; Insert FX (90 types) x 3
Audio driver compatibility			ASIO2.0, WDM
MIDI Interface	IN x 1	IN x 2/OUT x 2	IN x 2/OUT x 2
Audio Inputs	Line (RCA pin L/R) x 1		24-bit audio I/F; Unbalanced 1/4" (Mic/Guitar) x 1; Line (RCA pin L/R) x 1 S/P DIF Coaxial&Optical
Audio Outputs	Line (RCA) S/P DIF Optical Headphones (mini-stereo) x 1	1/4" Line 1 (Master) 1/4" Line 2 (Individual) S/P DIF Coaxial/Optical Headphones (1/4" phone) x 1	Line 1 (Master) Line 2 (Surround) S/P DIF Coaxial/Optical Headphones (mini-stereo) x 1
Audio Effects			Guitar-Multi, Vocal-Multi, Mastering, and Specie-Multi; Effects (9 types)
Format	GM2/GS/XGlite	GM2/GS/XGlite	GM2/GS/XGlite
Bundled Software	Drivers (Win/Mac) SD-20 Editor (Win/Mac) Demo MIDI Songs	Drivers (Win/Mac) SD-80 Editor (Win/Mac) Demo MIDI Songs	Drivers (Win/Mac) SD-90 Editor (Win/Mac) Demo Audio&MIDI Songs Demo MIDI Songs
Power Supply	USB Bus powered or AC Adapter	AC Cord	AC Cord

UM-1/UM-1S/UM-2

1x1 and 2x2 USB MIDI Interfaces



The UM-1 is a 1x1 MIDI interface device that comes fitted with the USB cable on one end, and two (MIDI In & Out) leads on the other end. It is powered directly through the USB connection to the computer, so it doesn't require any power supply to function.

The UM-1S delivers the same specification MIDI interface as the UM-1, but allows the use of MIDI cables of your own choice and length. Conveniently offers an attached USB cable to the MIDI In and Out port connectors so you can choose the cables for connection to MIDI keyboard or sound module.



- ◆ Connect any MIDI instrument directly to your PC or Mac. This includes sound modules, MIDI keyboards, digital pianos, home keyboards and synthesizers
- ◆ Control up to 16 channels of MIDI
- ◆ True Plug & Play
- ◆ Includes CD-ROM with drivers for Windows 98/2000 and Mac OS
- ◆ Powered directly through USB connection
- ◆ Controls up to 32 channels of MIDI equipment
- ◆ Low latency with FPT (Fast Processing Technology of MIDI transmission)



This compact device lets you send and receive 32 channels of MIDI data. Just hook it up between your USB-equipped computer or laptop and 2 different MIDI devices—quickly and easily. Convenient USB connections provides data transmission as well as power -no AC power adapter needed. WIN/MAC compatible.

- ◆ Fast and stable MIDI data transmission realized by FPT (Fast Processing Technology of MIDI transmission)
- ◆ Controls up to 32 channels of MIDI equipment
- ◆ Adapter-free bus-type power supply through PC
- ◆ Signal indicators for 2-ins and 2-outs

UM-550 5-in/5-out USB MIDI Interface



If your creativity happens in a studio environment with multiple MIDI devices, the UM-550 provides a 5 x 5 near-zero-latency MIDI interface/ MIDI patching. Its 3/4" rack design combined with all the same utility functions as its "big brother" the UM-880, make it the "just right" solution for USB connectivity of medium complexity MIDI implementations.

- ◆ 5-in, 5-out USB MIDI Interface to computer (control up to 80 channels)
- ◆ Stand-alone hardware MIDI Patcher without connecting to computer
- ◆ Quick patching, easy operation, and low latency with HDMR (Hardware Direct MIDI Routing) technology
- ◆ Fast and stable MIDI data transmission realized by FPT (Fast Processing Technology of MIDI transmission)
- ◆ Comfortable patching operation with LED switches on the front panel
- ◆ Convenient MIDI utility function (Merge, MIDI Message filter, Preview, Cable check)
- ◆ Letter size compact body for desktop use, and variable rack-mount type with detachable adapters
- ◆ Multiple units (up to 4) can be connected to the same computer for control of up to 320 channels
- ◆ Windows and Mac compatible

UM-880

8-in/8-out USB MIDI Interface with Hardware MIDI Patcher



The UM-880 is the most powerful, easy to use MIDI interface/patcher available. The vast majority of functions are available through either one or two button commands on the front panel. With eight sets of MIDI inputs and

outputs, the UM-880 lets you simultaneously control up to 128 channels. It's easy to connect to your computer—simply connect a USB cable and you're done. And it is hot-swappable, so you can plug and unplug the UM-880 even while your computer is on. You can also use up to four UM-880 units simultaneously, expanding your system to 512 channels.

The UM-880 features hardware MIDI patcher functionality. MIDI can be routed directly, simply



by pressing the panel buttons; and there are none of the complicated settings that are all too common on software patchers. The hardware MIDI patcher makes use of HDMR (Hardware Direct MIDI Routing) technology to ensure low-latency. If you have a lot of MIDI devices, you will find the UM-880 to be an integral part of your studio or stage rack, or both.

- ◆ The UM-880 can also act as a Stand-alone MIDI patcher with eight memory locations where you can store patch settings.
- ◆ Just a few major benefits of owning the UM-880 include:
 - ◆ Fast and stable MIDI data transmission realized by FPT (Fast Processing Technology of MIDI transmission)
 - ◆ Eight sets of input/out connections can be stored into memory.
 - ◆ Easy USB connection to your computer.
 - ◆ Convenient "Merge" function.
 - ◆ Cable Check Utility.

	UM-880	UM-550	UM-2	UM-1	UM-1S
Main Function	MIDI Patcher/ MIDI Interface	MIDI Patcher/ MIDI Interface	MIDI Interface	MIDI Interface	MIDI Interface
Unique Feature	Hardware MIDI Patcher with HDMR FPT	Hardware MIDI Patcher with HDMR FPT	Powered via USB	USB & MIDI Cable included	USB Cable included
System Compatibility	Windows XP/Me/98/2000 MacOS, MacOS X	Windows XP/Me/98/2000 MacOS, MacOS X	Windows XP/Me/98/2000 MacOS, MacOS X	Windows XP/Me/98/2000 MacOS, MacOS X	Windows XP/Me/98/2000 MacOS, MacOS X
Inputs	8	5	2	1 (Male)	1 (Female)
Outputs	8	5	2	1 (Male)	1 (Female)
MTC (MIDI Time Code)	Yes	Yes	Yes	Yes	Yes
Bundled Software	Drivers, OMS, FreeMIDI	Drivers, OMS, FreeMIDI	Drivers, OMS, FreeMIDI	Drivers, OMS, FreeMIDI	Drivers, OMS, FreeMIDI
Body	1U rack	Latter size, rack mountable	Compact	Cable ends	Cable end
Power Supply	AC cord	AC Adapter	USB Bus powered	USB Bus powered	USB Bus powered

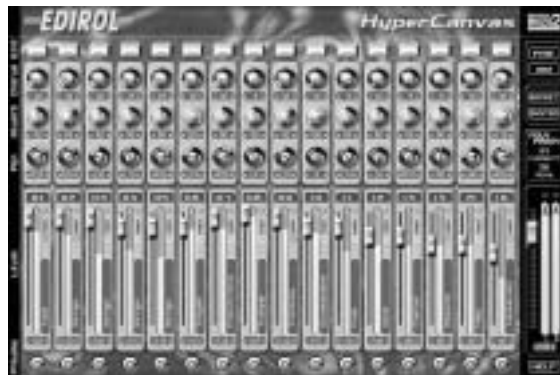
HQ HYPERCANVAS GM2

High Quality General MIDI Software Synthesizer

HyperCanvas GM2 is GM2 (General MIDI System Level 2) compatible, with 256 sounds and 9 drum sets. Play Jazz, Rock, Classics and more with your unique collection of studio quality instrument sounds. HyperCanvas GM2 contains multiple rich sound sources to help you create professional music of any kind. Features include a friendly user interface and a dedicated control panel to easily customize the sounds. Each instrument has levels of variation tones that are useful for a wide variety of music.

This high-quality software synthesizer is equipped with a sampling waveform and software synthesizer engine that generates amazing quality sound, ideal for new musical creation possibilities. Roland's synthesizer technology is used to make expressive waveform of various kinds possible.

Compatible with two plug-in formats: DirectX Instruments and VST Instruments. This sound source can now be integrated for excellent results using the best sequencing software in the world!



- ◆ GM2 (General MIDI System Level 2) compatible, with 256 sounds, 9 drum sets, 16 part, and 128-voice polyphony
- ◆ Hyper Studio GM2 provides over 500 tone variations that can be saved for use in future projects. 2 types of plug-in software synthesizers: DXi and VST Instruments
- ◆ 24-bit/96 kHz performance, 32-bit floating point signal processing
- ◆ Dedicated control panel to easily customize the sounds
- ◆ 256 preset instrument sounds and 9 preset drum sets (User can add 512 variation sounds and 128 variation drum sets)
- ◆ Excellent for SMF data playback
- ◆ High Quality reverb chorus/delay & part EQs
- ◆ 128-note polyphony with 16 part multi-instrument playback
- ◆ Includes Cakewalk's Music Creator and exceptionally well-produced original compositions

SUPERQUARTET

Plug-in Software Synthesizer for Piano, Bass, Guitar, Drums



Create your own exceptional sound. This plug-in software synthesizer offers outstanding variations of Piano, Bass, Guitar and Drums. SuperQuartet is equipped with a sampling waveform and software synthesizer engine that generates amazing quality sound, ideal for new musical creation possibilities. Roland's synthesizer technology makes it possible to use expressive waveforms of various kinds.

Include 3 drums sets - expandable to 128, 67 instruments - expandable to 384, 16 part multi-instrument playback, 128 voice polyphony, chorus and reverb effects, 24-bit/96 kHz processing performance and a full array of customizable editing parameters.

- ◆ 24-bit/96 kHz performance, 32-bit floating point signal processing
- ◆ Dedicated control panels to easily customize the sounds. Each instrument has levels of variation tones that are useful for a wide variety of music:
 - Piano: Concert Grand, Upright, Electronic, Rock, etc.
 - Guitar: Nylon classic, Steel, Electronic Acoustic, Jazz, Clean, etc.
 - Bass: Wood, Finger, Picked, Fretless, etc.
 - Drums: Standard, Brush.
- ◆ DXi and VST compatible
- ◆ 60 preset instrument sounds and 3 preset drum sets (you can add 384 variation sounds and 128 variation drum sets)
- ◆ Unlimited sound expression tools to edit and save as user variation tone
- ◆ High Quality reverb chorus/delay and part EQs
- ◆ 128-note polyphony with 16 part multi-instrument playback
- ◆ Includes Cakewalk's Music Creator and exceptionally well-produced original compositions

EDIROL

ORCHESTRAL

Lush Soundtracks and Beautiful Classical Arrangements

Orchestral instruments come alive with rich ambient piano and stereo sampled string sounds in this software synthesizer. The premium sounds in this synth are perfectly combined for lush soundtracks and beautiful classical arrangements. And its multiple output compatible with DXi 2.0 and VST 2.0 means you can enjoy your arrangements through several audio devices...simultaneously!

Orchestral provides premium acoustic sounds, focusing on strings, woodwinds, and brasswinds, as well as percussion and keyboards. These high quality samples include realistic articulations such as vibrato, spiccato, pizzicato, and tremolo. Using ample wave memory, Strings/Brass winds tones are selectable from solo, part section, and full section, making this ideal for the composition of contemporary music, sound tracks, and marching bands.

- ◆ DXi 2.0 and VST 2.0 support
- ◆ Acoustic sounds, focusing on Strings, Woodwinds, Brass, percussion, and keyboards
- ◆ Articulations such as vibrato, tremolo, pizzicato, and spiccato
- ◆ Up to 16-part and 128-voice polyphony
- ◆ Up to 24-bit/96kHz sampling resolution
- ◆ Multiple output
- ◆ Full assignable MIDI control
- ◆ Includes Cakewalk "MusicCreator2002"



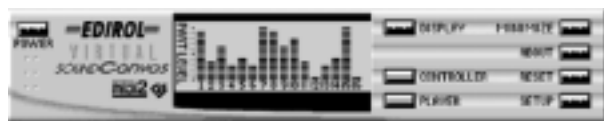
COMPUTER HARDWARE

817

VSC-MP1 Virtual Sound Canvas Multi Pack

This application allows you to take MIDI files and customize them to suite your taste.

It includes standard effects such as reverb, chorus and delay. Use the playback list function to store and retrieve your compositions. Export your finished files into popular multi-media applications as .WAV or .AIFF file formats. This is MIDI made easy!



- ◆ Two plug-in versions (DXi and VST Instruments.)
- ◆ 16 parts, up to 128-voice polyphony
- ◆ 902 tones plus 26 drum sets
- ◆ Reverb, chorus and delay effects
- ◆ MIDI to WAV/AIFF file conversion
- ◆ Includes over 100 royalty-free MIDI file songs
- ◆ Playback list function permits easy storage and retrieval of your selections.
- ◆ VSC-MP1 is WIN/MAC compatible and ships with 100 royalty-free MIDI files.

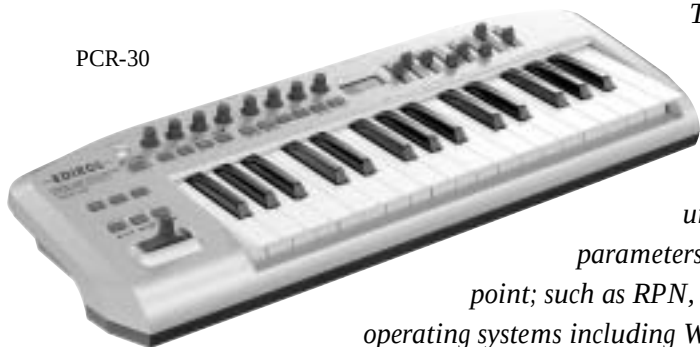
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PCR-30 / PCR-50

32- and 49-Note MIDI Keyboard Controllers

PCR-30



The PCR-30 (32-note) and PCR-50 (49-note) are the advanced MIDI keyboard controllers available, period. Never before have there been better compact keyboards for use with popular sequencers and software synthesizers. The PCR-30 / PCR-50 take MIDI control to a new level with unprecedented versatility. They can control a number of parameters not accessible from other controller keyboards at this price point; such as RPN, NRPN, SysEx. They are fully compatible with the latest operating systems including WinXP and Mac OS X. They are the ideal keyboards for use with Arturia Storm, SONAR, Cubase, Reason, FruityLoops, and most other popular sequencers and software synthesizers. As such it comes equipped with templates for these and other programs.

- ◆ 32 or 49 full-sized, velocity sensitive keys
- ◆ 8 assignable rotary knobs (cut off, resonance, pan, tempo, etc.)
- ◆ 8 assignable faders (volume, EFX send, etc.)
- ◆ 9 assignable buttons (program change, track mute, start, stop, etc.)
- ◆ 1 sustain, 1 expression pedal connections
- ◆ MIDI in & MIDI out
- ◆ Pitch & Modulation controls
- ◆ Preset Memory & 15 User Memory locations
- ◆ USB Bus powered or AC adapter
- ◆ Template sheets for controls

UR-80 USB Recording System and MIDI Controller

The UR-80 is an all-in-one studio box for computer musicians, combining a fully assignable control surface, USB audio interface with 24-bit/96 kHz capability, MIDI and the GM2 Hyper Canvas software synthesizer.

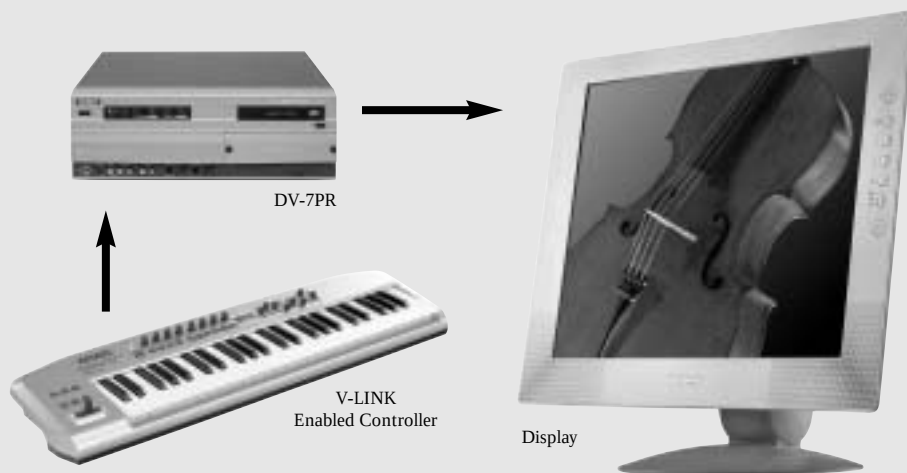
The integration of audio capture and highly customizable software control makes the UR-80 a "must-have" in the project studio. The control surface resembles a digital mixer, with transport controls, a time wheel and assignable switches for quick access to music software functions. It comes with a Control Map Editor and eight pre-loaded control maps supporting sequencers such as SONAR, Cubase and Logic, plus a variety of soft synths. (More control maps can be downloaded from Edirol). The UR-80 has a vast amount of MIDI implementation that allows you complete control of your favorite sequencing programs of software synthesizers as well as phantom power support for use with high-end studio microphones. Also offers full PC and Mac driver support, V-LINK support and a variety of input and output options.



- ◆ 102 assignable parameters through 43 knobs, buttons and sliders on the control surface
- ◆ Up to 24-bit/96kHz recording via USB Audio Interface
- ◆ Support for any MIDI parameter, including CC, RPN, NRPN and SysEx
- ◆ Comprehensive surface layout for assignable switches for plug-ins and soft synths
- ◆ 2x XLR/TRS combo jack with mic preamp & phantom power
- ◆ Bundled with HQ-GM2, Hyper Canvas software synthesizer
- ◆ ASIO 2.0, WDM, Mac OS X compatible drivers, low-latency support.
- ◆ V-LINK for control of Edirol DV-7PR Real-time Video Presenter

V-LINK

V-LINK is an exciting new technology from Edirol enabling the user to link musical performance to video. Using a V-LINK equipped device allows you to trigger clips, perform video effects and transitions all directly controlled by the expression being used in the musical performance. V-LINK uses a standard MIDI connection to control the Edirol DV-7PR. V-LINK is available on a number of Edirol and Roland devices. Many creative artists have discovered the benefits of using audio and video together. V-LINK now makes it easier.



DV-7PR

The DV-7PR is a unique real-time visual performance system. It allows the instantaneous recall of hundreds of high-quality DV material. It is ideal for use it in concerts, churches, convention centers and seminars. The DV-7PR integrates a MIDI based control device, such as a MIDI Keyboard, to allow the user to combine DV clips, digital audio, and still images into a synchronized presentation. The DV-7PR can play and loop indefinitely drawing from up to 13 hours of unique content.

The DV-7PR is suitable for:

- ✦ Visual presentations in conjunction with concerts, live stage shows, and dance clubs (with MIDI Keyboard, trigger unit, etc.)
- ✦ Video performance presentation at show events such as trade shows, business presentations, weddings, etc.
- ✦ Video kiosk systems
- ✦ Includes DV-7 software, a powerful video editing application

On-Demand Playback of Digital Video

- ◆ Native DV audio/video signal output
- ◆ Dual image cross-dissolve



- ◆ Stores and plays back up to 13 hours of unique content even in a continuous loop

Multi-Interface Control

- ◆ Direct and easy operation with a mouse or ASCII keyboard
- ◆ Use any MIDI controller (e.g. MIDI keyboard, touch-pad, or V-LINK enabled device)
- ◆ Real-time effect/mixing with DV7C controller
- ◆ Touch screen via RS-232C control
- ◆ Compatibility with many third-party devices

Real-Time Operation

- ◆ MIDI control of digital video and audio content
- ◆ Allows fully automated loop playback
- ◆ Dynamic real-time dissolves
- ◆ Easy re-display of any sequenced clip with a single key stroke

Integration of Video Formats

- ◆ Allows editing of video and audio clips
- ◆ Can use removable hard disks (DV-HD60/ DV-HD120) as a media source for dynamic playback and archiving
- ◆ Will import DV video clips created on a PC through the CD-ROM drive and FireWire interface

GIGAPORT AG/DG

USB to 8-Channel Analog or ADAT Interfaces

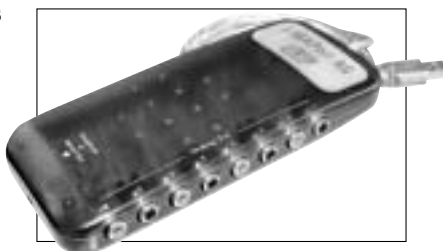
Not just another USB peripheral, GigaPort is the first of its kind, offering eight channels of audio output to either a single ADAT Lightpipe interface or eight individual analog outputs. The versatility of USB means that now you can have a viable high quality audio connection going out of your laptop or any USB compatible computer to the destination of your choice. And since GigaPort supports ASIO 2.0, GigaPort is compatible with both Mac and PC. GigaPort can also transform your laptop into a full-blown home theater system. It offers full compatibility with Dolby Digital 5.1 and DTS 5.1 surround formats and is ready to support DTS ES 6.1, and 7.1 formats as well.

Available in two versions:

The GigaPort DG with its ADAT digital connector is the world's first USB to ADAT optical interface. GigaPort DG is perfect for transferring files or mixing direct to ADAT or any piece of equipment that supports the ADAT optical interface. On the other hand, GigaPort AG is equipped with eight RCA analog outputs which make the possibilities endless. With eight high quality outputs, you could be mixing directly to DVD, transferring files, or just kicking back listening to your favorite DVDs straight out of your laptop in full 5.1 surround.

GIGAPort AG Specifications

- 8 x RCA analog outputs (8 x 24 bit D/A Converter),
- S/PDIF optical output
- ASIO 2.0 driver Mac & PC
- Headphone output
- WDM driver for Windows XP/2000/ME/98SE



GIGAPort DG Specifications

- 1 x ADAT digital output (8-channel out),
- ASIO 2.0 driver Mac & PC
- WDM driver for Windows XP/2000/ME/98SE



WAVETERMINAL U24

24-bit USB Audio Interface with Sample-Rate Converter

Perfect for laptop or desktop, the U24 is the most 'bang for your buck' USB peripheral going. Use it to record or perform wherever your gig takes you. Offering total USB flexibility and pure digital quality, coupled with true 24-bit capabilities, the U24 will easily qualify as the most useful device in your studio, wherever that may be. The U24 offers three stereo input options (coaxial, optical, analog) that you can select one at a time while the output signal is available on all output formats

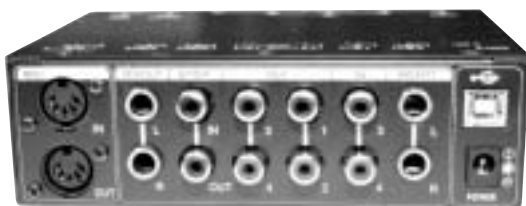
simultaneously. This allows the U24 to act as a signal converter between coaxial and optical audio. The analog I/Os of the U24 are supported with ultra-wide range 24-bit A-D/D-A converters, and unbalanced 1/4" phone jacks.

- ◆ 24-bit playback & record resolution
- ◆ S/PDIF coaxial & optical digital I/O
- ◆ 24-bit A-D and D-A converters : 100dB(A/D), 110dB(D/A) dynamic range
- ◆ Signal to Noise ratio (D/A) : 110dB
- ◆ -10dBv unBalanced 1/4" phone jack
- ◆ Optical <-> Coaxial Signal converter
- ◆ Simultaneous audio output through both analog and S/PDIF for easy-mix monitoring
- ◆ Internal digital mixer for input monitoring.
- ◆ 32, 44.1 and 48kHz sampling rates
- ◆ Real-time hardware sample rate converter
- ◆ Plug and play installation : no "IRQs" or "DMAs" to set, no addresses to configure
- ◆ Headphone amp
- ◆ Compatible with Windows 98SE/ME/2000, and XP along with Apple Sound Manager and MAC ASIO 2.0. Includes 6' USB cable.

AQUA U24M

4-in/4-out USB Audio/MIDI Interface

Built on the foundation of the U24, the U24M is a 24-bit/96kHz 4-in/4-out unit equipped with a 1x1 MIDI I/O port, S/PDIF digital input and output and two mic preamps. Housed in a 1/3 rack space size box, the U24M front panel has two combo connectors that can be switched between mic and line inputs. The mic preamps are equipped with switchable +48v phantom power. Also includes individual input gain



controls and a

headphone output with its own monitor level volume.

The back panel layout consists of two 1/4" line inputs for channels 1 and 2, and two phono jacks for line inputs 3 and 4. Outputs are comprised of four phono jacks for outputs 1 through 4, and a separate left and right mix out that are serviced by two 1/4" connectors.



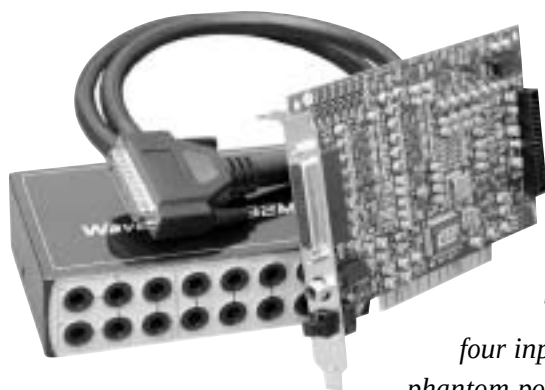
- ◆ Supports up to 24-bit/96 kHz
- ◆ Analog 4-in/4-out
- ◆ S/PDIF digital coaxial I/O
- ◆ 2 mic preamps with +48v phantom power

- ◆ 2 Inserts to use the external effect processor
- ◆ Headphone amp with volume control
- ◆ Internal monitoring mixer with In/Out level control

- ◆ No-latency monitoring with internal mix bus output
- ◆ 1x1 MIDI interface
- ◆ Windows OS/MAC OS compatible

WAVEterminal 192M

4-in/8-out PCI Audio Interface



The stylish Waveterminal 192M features a 4-in/8-out breakout box that connects to a half-length PCI card. The input A/D features high quality 24-bit/96kHz converters, while the D/A output has superior 24-bit/192kHz converters. Other features include support of multiple sample rates up to 192kHz, headphone amp output, 24-bit/192kHz S/PDIF stereo digital coaxial and 24-bit/96kHz optical and outputs, and full duplex (simultaneous record/playback) capability.

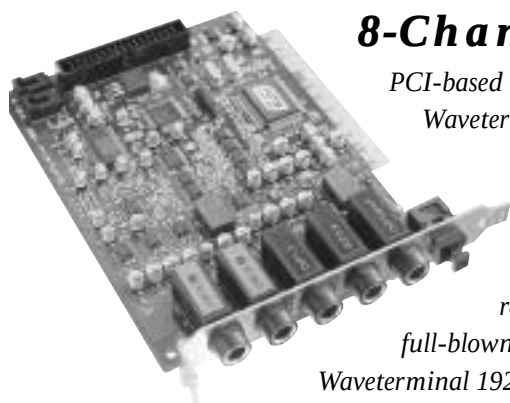
The Waveterminal 192M's versatile breakout box makes it easy to access its four inputs and eight outputs. Two separate balanced TRS mic inputs with +12v DC phantom power can be found along side the 4 unbalanced +4dB line inputs.

- ◆ High-quality 24-bit/96kHz A/D (100dB dynamic range) and 24-bit/192kHz D/A (104dB dynamic range)
- ◆ Four 1/4" unbalanced +4dBu line inputs
- ◆ Eight 1/4" unbalanced +4dBu line outputs
- ◆ 24-bit/192kHz S/PDIF coaxial output & 24-bit/96kHz optical output
- ◆ 2 mic preamps with +12v phantom power

- ◆ Two 1/4" stereo headphone outputs with level control (output 1/2 or selectable mixed output)
- ◆ Supports multiple sampling rates : 16, 22, 24, 32, 44.1, 48, 88.2, 96, 176.4, 192kHz
- ◆ Full duplex capability—simultaneous record/playback
- ◆ 32-bit PCI slot: PCI Bus-Mastering support

- ◆ ESI's powerful E-WDM driver provides perfect compatibility with Windows XP, 2000, ME, 98SE and Mac OS 10.x, offering ultra low-latency performance (ASIO 2.0) with applications such as Nuendo, Cubase, Cakewalk, Gigastudio, Sonar and Logic
- ◆ Accepts the optional MI/ODI/O add-on card (see next page).

WAVETERMINAL 192X/192L

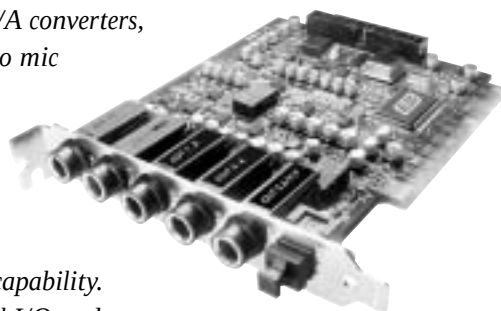


8-Channel PCI Audio Interfaces

PCI-based multichannel audio interfaces, the 2-input/8-output Waveterminal 192L and Waveterminal 192X are equipped with high-quality A-D and D-A converters, advanced audio capabilities and support ESI's E-WDM driver for compatibility with Windows XP, 2000, ME, and 98SE offering low-latency performance with applications such as Nuendo, Cubase, Gigastudio, Cakewalk, Sonar and Logic. They also offer complete compatibility with Dolby Digital 5.1 and DTS 5.1 surround formats. Used with a software DVD player, they transform your PC into a full-blown 5.1 home theater system. And with its true 24-bit/192kHz resolution the Waveterminal 192X also supports the DVD-Audio standard.

The Waveterminal 192L features 24-bit/96kHz A/D converters and 24-bit/192kHz D/A converters, all with 100 dB dynamic range. Other features include stereo analog line inputs, mono mic preamp with 12v DC phantom power, headphone amp output, 24-bit/192kHz S/PDIF stereo optical digital output and full duplex (simultaneous record/playback) capability.

For even higher quality, the Waveterminal 192X features 24-bit/192kHz A-D and D-A converters with up to 123dB dynamic range. Also standard is a 24-bit/192kHz S/PDIF stereo optical digital output and full duplex (simultaneous record/playback) capability. Optional MI/ODI/O card adds S/PDIF optical digital inputs, 192kHz S/PDIF coaxial I/O and a 1-in/1-out MIDI interface to the Waveterminal 192L and 192X cards.



FEATURES

- ◆ Two-channel (four-channels with the optional MI/ODI/O) recording and 8-channel playback at the same time
- ◆ 24-bit 96kHz S/PDIF optical digital out
- ◆ They support multiple sampling rates : 16, 22, 24, 32, 44.1, 48, 88.2, 96, 176.4, 192kHz
- ◆ Full duplex capability—simultaneous record/playback
- ◆ 32-bit PCI slot: PCI Bus-Mastering support
- ◆ Headphone amp
- ◆ Support the EWDM driver: Multiple MME, Multiple Direct sound, ASIO 2.0 and GigaStudio support
- ◆ Compatible with Windows XP/2000/ME/98SE & MAC OS 10.x

Waveterminal 192L Only

- 24-bit/96kHz A/D 100dB Dynamic range
- 24-bit/192kHz D/A; 104dB Dynamic range
- Two +4dBu unbalanced 1/4" TRS inputs
- Three +4dBu unbalanced 1/4" TRS stereo outputs
- 24-bit/96kHz optical stereo digital output
- MIC preamp with +12v phantom power

Waveterminal 192X Only

- 24-bit/192kHz A/D; 123dB Dynamic range
- 24-bit/192kHz D/A; 106dB Dynamic range
- Two +4dBu balanced 1/4" TRS inputs
- Three +4dBu unbalanced 1/4" TRS stereo outputs
- Supports multiple cards in one computer system (192X only)

MI/ODI/O



The optional MI/ODI/O card lets you get more from your Waveterminal 192 series (192M, 192L, 192X) by adding 24-bit/96kHz S/PDIF optical input and coaxial I/O, and a 1x1 MIDI I/O. Easy to install, MI/ODI/O requires no additional drivers, power supply or new IRQ set up.

- ◆ 1X coaxial digital I/O (192kHz)
- ◆ 1X optical digital input
- ◆ 16 Channels MIDI I/O
- ◆ Turns any Waveterminal 192 card into a 4-in 8-out/16 MIDI channel integrated audio interface

WAMI RACK 192X/192L

10-Channel Integrated Audio Interfaces

The flagship WaMi Rack 192L and WaMi Rack 192X are housed in a single-rack space box designed to form the central core of a complete 192kHz/24-bit recording system.

They feature four studio-quality discrete XLR mic preamps (line/mic switchable) inputs with +48v phantom power, headphone output with independent level control, built-in MIDI interface and coaxial S/PDIF connectors. Otherwise identical, the 192L features a 24-bit/96kHz A/D converter, the 192X features a 24-bit/192kHz A/D converter.



- ◆ 4 studio-quality, ultra-clean discrete XLR mic preamps with +48v phantom power
- ◆ The WaMi Rack 192L has a high-quality 24-bit/96kHz A/D converter (up to 100dB dynamic range), the 192X's 24-bit/192kHz A/D converter handles up to 123dB.
- ◆ Both have state-of-the-art 24-bit/192kHz D/A converters with 104dB dynamic range
- ◆ 1x1 MIDI Interface
- ◆ Four analog inputs and 8 outputs on +4dBu unbalanced 1/4" TRS phone jacks
- ◆ They support multiple sampling rates: 16, 22, 24, 32, 44.1, 48, 88.2, 96, 176.4, 192kHz
- ◆ 24-bit/192kHz supported S/PDIF coaxial digital I/O
- ◆ They offer full compatibility with Dolby Digital and DTS 5.1 as well as DTS ES 6.1, and 7.1 surround formats. WaMi Rack 192X fully supports DVD Audio as well.
- ◆ Full duplex capability—simultaneous record/playback
- ◆ Headphone amp
- ◆ ESI's powerful E-WDM driver provides perfect compatibility with Windows XP, 2000, ME, 98SE and Mac OS 10.x, offering ultra low-latency performance (ASIO 2.0) with applications such as Nuendo, Cubase, Cakewalk, Gigastudio, Sonar and Logic.

MAXIO XD

The Ultimate Solution for High Quality Audio Production



The MAXIO XD is a complete 24-bit/192kHz recording system designed to handle 32 simultaneous channels of analog inputs and outputs. The basic system consists of the EX-8000, a 2-rack space unit with 8-in/8-out balanced XLR connectors and a choice of a PCI

interface for desktop systems, or a cardbus interface for laptop recording. Each interface is equipped with four firewire-like EDI (ESI Digital Interface) connections, each capable of supporting one EX-8000, giving you 32-channel capability on one card. In addition, the PCI version can support up to 4 cards on the same computer making a total of 128 channels of recording possible. The front panel of the EX-8000 features 8 balanced mic preamps., while combo connectors offer the choice of using XLR or TRS inputs. The EX-8000 also includes +48v phantom power and 10-step LED peak metering lights for each channel, as well as AES/EBU and S/PDIF digital I/O, and a headphone monitor.

- ◆ MAXIO PCI card and the MAXIO Cardbus interface include four EDI protocol ports and a buslink breakout that hosts a 192kHz S/PDIF coaxial I/O, Word Clock I/O BNC connector, and a 1x1 MIDI interface.
- ◆ Hardware input monitoring
- ◆ Comes standard with DirectWire, ESI's powerful and unique virtual patchbay for digitally connecting between popular audio software programs.
- ◆ 8-channel digital I/O: AES/EBU & coaxial support up to 24-bit/192kHz
- ◆ Eight XLR/1/4" TRS analog combo inputs and eight 1/4" TRS/XLR analog outputs (+4dBu/-10dBV); plus eight 1/4" inserts
- ◆ Headphone amplifier
- ◆ Internal 64-channel digital mixer & assign channel to port

QUATA-FIRE

24-bit 192kHz FireWire 4x4 Audio/2x2 MIDI Interface.

The ultimate mobile solution for audio professionals, Quata-Fire is a versatile 4-in/4-out 1/3 rack space size unit with high-quality 24-bit/192kHz audio performance. Features include two front panel mounted combo connectors that can be switched between mic and line inputs. The mic preamps are equipped with switchable +48v phantom power, individual input gain controls and a headphone output with its own monitor level volume. Also features 2x2 MIDI interface, and a coaxial S/PDIF I/O.



OCTA-FIRE

24-bit 192kHz FireWire 8x8 Audio/4x4 MIDI Interface



Based on ESI's popular WaMi Rack Series, OctaFire is an 8-in/8-out device features four combo connector mic preamps with +48V phantom power along with a headphone

monitor on the front panel. Other great features include 4x4 MIDI interface offering up to 64 channels of MIDI, coaxial S/PDIF I/O, and Wordclock I/O.

The QuataFire, OctaFire and HexaFire are all Windows XP and Mac OS X compatible and all feature:

- ◆ Powered by IEEE1394 Bus or external power supply
- ◆ No-latency monitoring with internal mix bus output
- ◆ Cascade (link) up to 4 units via standard IEEE1394 hub

HEXA-FIRE

24-bit 192kHz 16x16 High Definition FireWire Audio/MIDI/SMPTE Interface

The flagship of ESI's Fire Series is the HexaFire, a 16-In/16-Out box that features 8 balanced mic preamps via combo connectors offering the choice of using XLR or TRS inputs. There is +48v phantom power on each channel as well as 10-step LED peak metering lights for channel inputs and outputs on the front



panel. Additional features included S/PDIF digital I/O, and a headphone monitor, along with S/PDIF coaxial I/O, Word Clock I/O, and a 1x1 MIDI interface. Sixteen channels of AES/EBU in and out are accessible via four D-25 connectors. Two IEEE-1394 ports can connect the HexaFire to a computer or daisy chain the unit with up to three other HexaFires.

MIDI INTERFACES

ESI introduces the power MIDI trio. Three different USB MIDI interfaces to choose from that best fit your budget and production needs. The RoMI/O is a 1-in 2-out, 32 channel interface that fits in the palm of your hand. It offers the flexibility to take your music anywhere and everywhere you need to go. The M4U is a 4-in/4-out device housed in a half-rack sized box that can handle up to 64 MIDI channels. The M8U is built into a full single rack space unit. It has 8 inputs and 8 outputs and is designed to accommodate 128 MIDI channels. The M8U also acts as a stand-alone MIDI patchbay when not connected to a computer. All three units are designed to for use with Windows XP and Mac OS X. Just plug and play.

THEY ALL FEATURE:

- ◆ High-speed connection to USB-equipped PC or Mac
- ◆ MIDI activity indicator for each port

RoMI/O

1-In 2-Out, 32 channel USB to MIDI Interface for Mac and PC

- ◆ Complete cable type body from PC end to MIDI ends
- ◆ USB powered - requires no external power supply
- ◆ Extremely compact 83 x 52 x 28mm (WDH)

MIDITERMINAL M4U

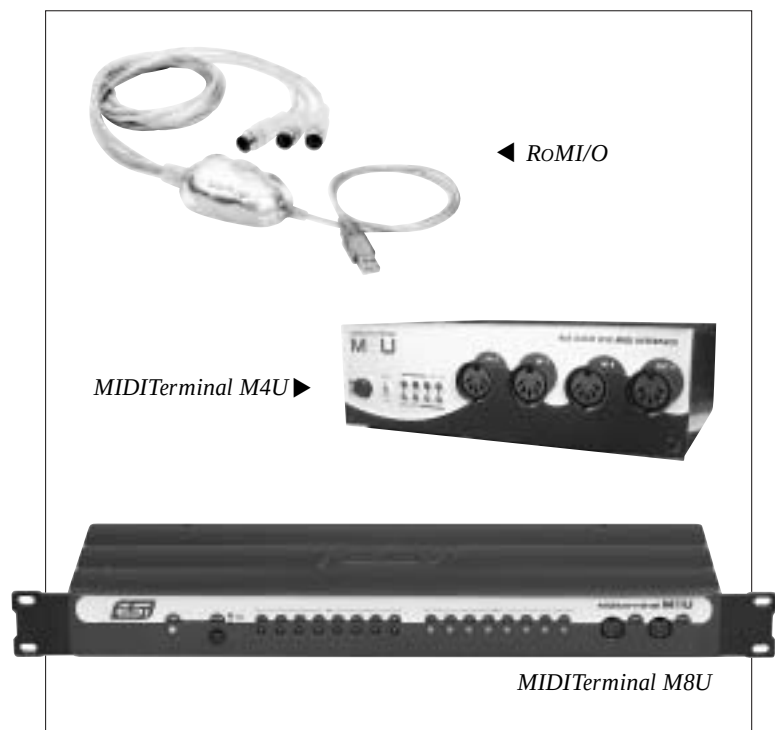
4-In, 4-Out, 64 channel USB to MIDI Interface for Mac and PC

- ◆ USB powered - requires no external power supply
- ◆ Perfect MIDI timing
- ◆ Compact 1/3 rack size

MIDITERMINAL M8U

8-In, 8-Out, 128 channel USB to MIDI Interface for Mac and PC

- ◆ Perfect MIDI timing
- ◆ Various MIDI THRU function
- ◆ Unit can be used as a stand-alone MIDI patch bay



8180FS - MIDITERMINAL 1394

8x8 IEEE1394 MIDI/SMPTE Interface

The 8180FS is an 8x8 FireWire to MIDI interface offering up to 128 channels of MIDI along with full SMPTE and Wordclock synchronization. The front panel is equipped with MIDI activity lights. The unit can be used together with up to three other 8180's.

- ◆ 8in/8out (128 channels) MIDI interface
- ◆ H/W based MIDI processing with large size of buffer memory
- ◆ SMPTE (LTC) I/O
- ◆ Video Sync In, Word Sync Out (BNC connector)
- ◆ Stand-alone MIDI Thru/Patch bay BOX feature
- ◆ Cascade up to 4 units; provides 32-inn/32-out (512channels) MIDI ports
- ◆ Powered by IEEE1394 Bus or external power supply
- ◆ Windows OS/MAC OS compatible



EVENT ELECTRONICS

EZBUS

COMPUTER HARDWARE

826

The Ultimate Three-in-One Audio Tool

A true triple-threat, Event took a computer audio recording interface filled with an extremely versatile collection of analog and digital inputs and outputs, a deeply programmable and remarkably flexible software control surface and a 24-bit/96kHz stand-alone digital mixer, and built them all into one incredibly convenient, compact, powerful package.



Analog Input/Output

When it comes to getting music into and out of your computer, there's no more flexible, powerful, or versatile recording interface than the EZbus. Dual low-noise 24-bit/96kHz mic preamps—complete with +48V phantom power—provide a super clean path for vocals, acoustic guitars, and other miked signals. High impedance, high gain instrument inputs (also 24-bit/96kHz) make tracking superb sounding electric basses and guitars an everyday affair. And Event's unique triple-summed 24-bit/96kHz line inputs can each accept up to three independent signals, so it's EZ to plug in multiple synths, or a rack of outboard effects—or both. You won't find the EZbus skimping on analog outputs either. Six, discrete, balanced 24-bit/96kHz outputs plus a TRS stereo headphone output (complete with its own amplifier), make it a snap to interface with your outboard gear, set up control room and cue mixes, monitor a surround mix—or accommodate just about any other audio application you can imagine.

Processing

Each of the EZbus Primary Audio Channels features three bands of super responsive, musical EQ—high- and low- shelving plus a fully parametric mid band. You also get real-time dynamics processing on every channel. Tame your vintage gear with the Noise Gate. Or tap into the fully programmable look-ahead Compressor and never again worry about clipping that perfect vocal take.

Hardware Mixer

If you're making music with computers, the EZbus can make the process simpler and more fun. Take mixing, for example. Without an EZbus, you adjust each of your magnificently crafted tracks one at a time with a mouse. With an EZbus, you reach for an honest-to-goodness hardware mixer, and move eight faders at a time. (Now that's mixing!)

LCD Display

This custom display not only shows you all the normal stuff—levels, mute and solo status, and the like—but cool stuff, like the amount of gain reduction your compressor settings generate, and handy alert messages, such as input overload and clock signal dropout warnings.

Transport Controls

The EZbus sports programmable transport controls that let you easily start, stop, record, rewind, and fast forward through your projects. Use them to set multiple locate points on the fly, then recall them at the push of a button. Navigating through your projects has never been this easy.

Full Control

Virtually every parameter of a DAW, plug-in, virtual instrument, or MIDI-capable device can be controlled from the front panel. Use the factory control surface profiles or create and customize your own. With up to 32 control setups in on-board memory, the EZbus immediately takes center stage as command central of your studio or live performance rig.

Power Routing

Event's exclusive any-input-to-any-output audio routing matrix provides unmatched flexibility for virtually any audio application. Tap into the signal at the input, pre- or post-trim control, pre- or post-EQ and dynamics, pre- or post-fader—and route it to the destination of your choice. Even route digital signals directly from input to output for bit-accurate digital copying. Now add four Sends, each independently configurable pre- or post-fader, two mono Returns and one stereo Return, and both Main and Alt Mix buses, and there's almost no end to your routing options.

Easily generate independent control room, stage monitor, and front-of-house console mixes. Create a multi-bus setup for recording—and monitor it with zero latency. Save your custom I/O configurations for instant recall from the front panel, via footswitch, or using MIDI program change commands. Up to 32 unique configurations can be on-board at any time, and you can archive and organize thousands more using the included EZbus Mix Librarian software.



EQUIPMENT LEASING AVAILABLE

EVENT ELECTRONICS

Control Surface

A single button-push is all it takes to instantly transform the EZbus from an Audio Recording Interface into a Control Surface. Then operate your favorite MIDI and audio software using the EZbus's hardware controls. Customize the controls with your own command set, or use the convenient factory profiles. Presets for major software programs, including VST, Nuendo, Cakewalk, Sonar, and many more are included.

MIDI

With three independent MIDI I/O ports, the EZbus puts you in complete command of your MIDI system. Connect your controller keyboard to either of the MIDI inputs on the EZbus, and trigger your virtual instruments via USB. Now route the audio from the virtual synths back into a couple of EZbus channels via USB, and mix the signals with your regular hardware synths (which are plugged into other EZbus channels). Your entire keyboard rig—real and virtual—is now a fully integrated system!

Digital I/O

What could be easier than hot-plugging the EZbus into your computer's or laptop's USB port and getting your musical ideas recorded fast? Connect to lightpipe-equipped gear via the ADAT optical ports. Interface with digital effects units, DAT recorders, or any S/PDIF device via the dual coaxial S/PDIF outputs and the coaxial and optical S/PDIF inputs. You can even mix and match sample-rates via the coaxial S/PDIF input, so that killer track you recorded at 44.1kHz can easily be imported into your 48kHz session. And the low jitter word clock output will keep all your digital devices locked with

EZ8 24-bit/96kHz Optical Audio Interface

Expand your EZbus into a full-blown multitrack recording system with the EZ8 Optical Audio Interface. This low-cost/high-performance PCI card provides eight discrete channels of full-duplex 24-bit/48kHz digital I/O via ADAT lightpipe.

JL COOPER

CS-32 MiniDesk

**Amazing
32-Channel
Miniature
Control Console
that fits in the
Palm of Your
Hand!**



The CS-32 MiniDesk is a miniature control surface for fast access to the most commonly used functions in most audio programs. It works with ProTools, X-Track, Nuendo, Cubase SX, VST, Digital Performer, Soundscape REd, Cakewalk Pro, Sonic Foundry, Ableton Live, Merging Technologies Pyramix, Logic Audio and most audio software programs! The CS-32's radically small size does not reduce its intense capabilities as an extremely powerful controller with 32 Dedicated Faders/Channel Strips for real-time control of volume levels, Mute, Solo, Track Arming and more—record, edit and mix your projects to perfection.

The "Mini" has Tactile Transport Buttons, Cursor Keys and Weighted Jog/Scrub Wheel, just like the big guys. Six Rotary Knobs give you hands-on, automation control of panning and plug-ins. A full bank of quick function keys are ready for frequently used editing features.

MiniDesk takes up less space than a sheet of paper. Use it almost anywhere, even on the most crowded desk. Perfect for portable recording applications with a laptop. With a controller this small, you might want to get an extra one to keep in your car.

- ◆ Adds tactile controls to most digital audio editing systems, MIDI sequencers and animation software
- ◆ 32 dedicated channels with 20mm faders and channel buttons eliminate fader bank switching confusion
- ◆ Puts over 150 dedicated controls at your fingertips
- ◆ Perfect for project and home studios
- ◆ Weighted Jog/Scrub Wheel (optically encoded)
- ◆ 2-digit alphanumeric LED display
- ◆ Dual LED activity indicators
- ◆ Sends various messages —CS-10 Emulation, General Controllers
- ◆ Low profile and compact design with heavy duty construction
- ◆ MIDI/MMC, USB and RS-232 models available
- ◆ USB version includes software (Mac and Win) and Keysets

LYNX

LYNXONE

COMPUTER HARDWARE

828



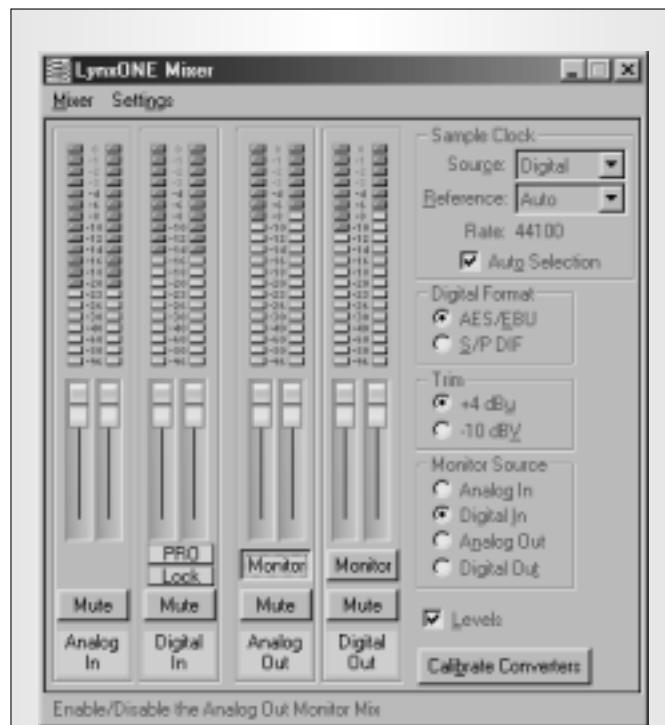
24-bit Digital Audio/MIDI PCI Card

Representing a great value in integration and professional capabilities, LynxONE is the perfect "front-end" for any studio quality audio or MIDI workstation.

LynxONE combines studio-quality 2-channel analog I/O (sampling rate up to 50kHz), bit-perfect AES/EBU or S/PDIF digital I/O supporting up to 96kHz, and 32 channels of low latency MIDI to create a new standard in interface hardware for audio and MIDI workstations. And LynxONE's compatibility with all popular Windows-based audio editing and MIDI sequencing software allows users to choose their own working environments. Applications include critical audio recording and editing, CD mastering, restoration, audio for video, music composition, and MIDI sequencing.

FEATURES

- ◆ Two-channel 24-bit A-D/D-A converters and a simple analog signal chain ensure exceptional sound quality. (Software selectable +4dBu or -10dBV levels).
- ◆ If you are working in an all digital environment, the LynxONE delivers bit-perfect digital audio at up to 96kHz, via an AES/EBU or S/PDIF I/O (software-selectable in the LynxONE mixer application).
- ◆ Low-jitter PPL sample clock allows the LynxONE to be used as a slave or master timing source, enabling up to four cards to be linked together for multi-channel operation.
- ◆ The flexible mixer application also provides keyboard and mouse control over the sample clock generator, monitor source, analog trim and levels of all four channels, with peak level metering.
- ◆ PCB layout and circuit design techniques reject computer related noises. Because of this, LynxONE offers 103dB of "real-world" dynamic range when installed in a typical computer.
- ◆ The ability to easily monitor the recording inputs is a must during overdubbing sessions. LynxONE lets you select either the analog or digital inputs as the monitor source. This signal can be mixed with playback audio on either the analog or digital outputs or both simultaneously. This capability also allows "stand-alone" A/D or D/A conversion completely on board LynxONE. Because mixing is performed in hardware, recording input-to-output delay is extremely low.
- ◆ Two independent MIDI ports provide 32 channels of low-latency MIDI I/O, with real-time transfer of Note On/Note Off and MTC messages over the PCI bus for accurate timing and synchronization in music composition and MIDI sequencing applications.
- ◆ Compatible with Windows-based audio editing and MIDI sequencing software, LynxONE delivers exceptionally high levels of performance in critical audio recording and editing, CD mastering, broadcast, audio restoration, audio for video and MIDI sequencing applications.
- ◆ Comes complete with balanced analog, digital and MIDI/clock cables for easy integration into your existing setup.



Complete software control of LynxONE's features is provided with the LynxONE Mixer. As shown to the right, this application permits keyboard and mouse click control of volume, sample clock generator, digital I/O format, analog trim, and input monitoring. Peak level meters are also provided.



EQUIPMENT LEASING AVAILABLE

LYNX

LYNX TWO

192kHz Multichannel Audio Reference Interface

Incorporating state-of-the-art converter technology, the LynxTWO is capable of precision never before achieved in a PCI audio card. With performance that exceeds stand-alone converters, LynxTWO sets new standards for signal purity, versatile synchronization, powerful hardware mixing, and extensibility to support a variety of multichannel formats including ADAT and TDIF.

The LynxTWO incorporates the latest generation 24-bit/192kHz converter technology to create a PCI audio which rivals the performance of many high-end studio converters. A choice of three multi-channel analog configurations makes it ideal for DVD-authoring, multi-channel recording, mastering, broadcasting, synchronization and video applications, with non-audio digital I/O support provided for Dolby Digital.



- ◆ 24-bit analog inputs and outputs with three options: 4-in/4-out (LynxTWO-A), 2-in/6-out (LynxTWO-B) or 6-in/2-out (LynxTWO-C), each with line levels of either +4dBu or -10dBV, selectable in channel pairs through the mixer software.
- ◆ The 32-channel mixer application also controls the card's routing, monitoring and sample clock settings.
- ◆ Includes balanced audio and sync cable sets
- ◆ Has one digital I/O supporting both AES/EBU and S/PDIF formats at 16, 20 and 24-bit depths, and features a sample rate converter for up to 3.1 rate conversion from the digital input signals.
- ◆ The internal port allows data routing and synchronization between multiple LynxTWO cards, while the external port allows the connection of Lynx, ADAT, TDIF and other multi-channel interfaces for great system flexibility.
- ◆ Two LStream expansion ports support multi-channel interface modules, with each port offering 8-input/output channels of 24-bit/96kHz operation.
- ◆ Powerful synchronization and time code facilities include an LTC reader/generator which accommodates all standard frame rates, and a low-jitter sample clock generator, which is capable of locking to NTSC or PAL video signals, and to standard reference and word clock signals.



Lynx L22

192kHz PCI Digital Audio Interface

The Lynx L22 is a professional audio interface card designed for the most demanding audio recording, post-production, broadcast, and measurement applications. Based on LynxTWO technology, the L22 can capture or generate signals beyond the audio bandwidth up to 100 kHz with extreme accuracy. Using proprietary circuit topologies and custom components in the analog stages coupled with the latest converter technology, the L22

achieves a 117 dB dynamic range. Most importantly, advanced noise-rejection design techniques maintain this performance in real world use from computer to computer.

- ◆ Large on-board buffers and extremely efficient zero-wait state DMA engine ensure glitch-free recording and playback. This provides tolerance to system latencies and significantly reduces load on the host CPU.
- ◆ Extremely flexible onboard digital mixer allows the L22 to adapt to any studio or workstation configuration.
- ◆ Each of the mixer's 16 outputs is capable of mixing signals from 16 physical inputs or 16 playback tracks with 32-bit precision.
- ◆ A choice of dither algorithms is available on each input to mask low-level artifacts while reducing word widths to 8, 16, or 20 bits.
- ◆ The L22 provides I/O expansion via its two LStream ports. Combined, these ports allow 16 channels of additional I/O from external ADAT, AES/EBU, or TDIF devices. The ports can also be used to route data and synchronize to other L22's or LynxTWO's to create high channel-count systems.

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LS-ADAT

Multi-channel ADAT Expansion Card

The LS-ADAT is a full-function ADAT interface that provides two ADAT lightpipe inputs and outputs and an ADAT sync input for the LynxTWO and Lynx L22 audio cards. Operating at a sample rate of 48 kHz, the LS-ADAT I/O channel capacity is 16. Higher sample rates are supported using S/MUX technology: 8 channels at 96 kHz and 4 channels at 192kHz.



- ◆ The ADAT sync input provides two methods of sample-accurate synchronization.
- In systems using ASIO compatible audio applications, the LS-ADAT utilizes Steinberg's ASIO Positioning Protocol for synchronization to ADAT time code.
- Using the LS-ADAT's cue point capability initiates recording or playback with sample period resolution.
- ◆ Sample clock source can be derived from a word clock or composite video received by the LynxTWO. In addition, either lightpipe input or the Sync In port can also be selected as the clock source.
- ◆ The LS-ADAT can also transmit time code via MTC for general compatibility with many applications.
- ◆ Installs in an empty bracket internally in your computer, no PCI slot required.

Now you can easily increase the I/O capacity of the LynxTWO and L22 digital audio cards. The LS-AES and LS-ADAT provide high-performance multi-channel AES/EBU and ADAT connectivity for any Windows or Macintosh based audio or video workstation at sample rates up to 192kHz.

Channels from the expansion cards are connected directly to the LynxTWO/L22 digital mixer. This allows almost unlimited routing capabilities with expansion card I/O's, as well as the analog and digital I/O's of the host LynxTWO or L22.

Using the LynxTWO/L22 Mixer application, "stand-alone" functions can be configured that place no demand on the host computer. In a LynxTWO system these functions include but are not limited to:

- Four-channel, 192 kHz analog-to-AES or analog-to-ADAT converter
- Four-channel, 192 kHz AES-to-analog or ADAT-to-analog converter
- Eight-channel AES digital patch-bay
- 16-channel ADAT digital patch bay
- AES to ADAT or ADAT to AES format converter
- Composite video or word clock to AES or ADAT synchronizer

LS-AES LStream Expansion Card

The LS-AES is an 8-channel AES/EBU or S/PDIF LStream interface module that is designed for use with the LynxTWO and Lynx L22. The LS-AES provides four inputs and outputs that support professional AES/EBU and consumer S/PDIF digital I/O formats. Connections are transformer coupled with pro-quality sample rate conversion (SRC) available on all inputs. The LS-AES is also compatible with Dolby Digital and DTS encoded formats.



- ◆ Running at a sample rates up to 96 kHz, the LS-AES provides eight I/O channels in single-wire mode and four channels in dual-wire mode. At 192 kHz, four channels of I/O are available in dual-wire mode and two channels in quad-wire mode.
- ◆ For additional channel capacity, two LS-AES cards can be used simultaneously with one LynxTWO or L22.
- ◆ The LS-AES can handle both asynchronous and synchronous studio configurations. SRC can be enabled independently on each digital input to accommodate asynchronous signals from multiple digital devices. Alternatively, all inputs can be run synchronously and any input can be selected as the system clock source. The card can also be synchronized to a word clock or composite video received by the host LynxTWO.
- ◆ For S/PDIF coaxial connections, the optional Lynx XLR to RCA S/PDIF adapters CBL-XFDRM18 and CBL-XMDRM18 are required. The LS-AES installs in an empty bracket internally in your computer, no PCI slot required.
- ◆ Includes: LS-AES Internal Card LS-AES LStream Ribbon Cable 6' AES/EBU Breakout Cable

LYNX COMPARISON CHART

	LynxONE	Lynx L22	LynxTWO-A	LynxTWO-B	LynxTWO-C
Analog I/O					
Number of Input Channels	2	2	4	2	6
Number of Output Channels	2	2	4	6	2
Maximum Sample Rate	50kHz	200kHz	200kHz	200kHz	200kHz
Dynamic Range (Analog In or Analog Out)	>106 dB	117 dB	117 dB	117 dB	117 dB
Digital I/O					
Number of Channels	1 Stereo	1 Stereo	1 Stereo	1 Stereo	1 Stereo
Maximum Sample Rate	96kHz	96kHz	96kHz	96kHz	96kHz
AES/EBU and S/PDIF Support	Yes	Yes	Yes	Yes	Yes
Bit Perfect Transfers for Dolby & DTS	Yes	Yes	Yes	Yes	Yes
3:1 Sample Rate Converter		Yes	Yes	Yes	Yes
Subcode Support		Yes	Yes	Yes	Yes
LStream Ports					
Number of LStream I/O Ports		2	2	2	2
MIDI					
Number of MIDI Ports	2				
Multi-Client MIDI Record	Yes				
Time Code					
LTC Reader			Yes	Yes	Yes
LTC Generator			Yes	Yes	Yes
LTC to MIDI Time Code (MTC) Conversion			Yes	Yes	Yes
Synchronization					
Word Clock	Yes	Yes	Yes	Yes	Yes
256 Word Clock	Yes	Yes	Yes	Yes	Yes
13.5MHz Pixel Clock	Yes	Yes	Yes	Yes	Yes
27MHz 2x Pixel Clock	Yes	Yes	Yes	Yes	Yes
SMPTE Longitudinal Time Code (LTC)			Yes	Yes	Yes
NTSC/PAL Composite Video Genlock			Yes	Yes	Yes
Miscellaneous					
Simultaneous Record and Play (SRP)	Yes	Yes	Yes	Yes	Yes
Simultaneous Stereo Record Devices	2	8	8	8	8
Simultaneous Stereo Play Devices	2	8	8	8	8
4 Channel / 32-bit Digital Mixer	Yes				
32 Channel / 32-bit Digital Mixer		Yes	Yes	Yes	Yes
General Purpose Frequency Counters		8	8	8	8
16 Channel Bus Master Scatter-Gather Engine		Yes	Yes	Yes	Yes
Driver Support					
Windows 95/98/ME					
Multimedia Extensions (MME)	Yes	Yes	Yes	Yes	Yes
DirectSound	Yes	Yes	Yes	Yes	Yes
ASIO 2.0	Yes	Yes	Yes	Yes	Yes
Windows NT/2000/XP					
Multimedia Extensions (MME)	Yes	Yes	Yes	Yes	Yes
ASIO 2.0	Yes	Yes	Yes	Yes	Yes
Macintosh					
ASIO 2.0	Yes	Yes - Beta	Yes - Beta	Yes - Beta	Yes - Beta

M-AUDIO

DUO USB

COMPUTER HARDWARE

832



2-in/2-out USB Audio Interface with Mic Preamps and Digital Output

Record from mics or any line level sources. Optimize levels with gain controls and pads, as well as signal and clip LEDs. Use the Direct Monitor button for zero latency monitoring (direct from the sources without going through the computer and software). Adjust the global output by toggling between +4db and -10db. Headphones can be connected for convenient monitoring in the field. When disconnected from the USB port, the Duo functions as a 24-bit standalone A/D converter. Select sample rates via DIP switches (44.1, 48, 88.2 and 96kHz), connect the S/PDIF output to your digital device, and you're ready to record digitally anywhere, anytime.

- ◆ 2x2 analog I/O
- ◆ 2 mic preamps
- ◆ 2 XLR-balanced mic inputs
- ◆ 2 balanced/unbalanced 1/4" TRS line inputs
- ◆ Available gain of 66dB
- ◆ 20db pad on each mic input
- ◆ 48V phantom power
- ◆ S/PDIF digital output (16- and 24-bit)
- ◆ Zero-latency direct monitoring greatly simplifies recording and overdubbing
- ◆ Multitrack recording and mixing without PCI card installation

USB/Firewire Mobile Studio Interfaces—Take your music anywhere you want

Mobility is about more than just field recording, it's about ease and flexibility. Today the studio is no longer a place, it's a process. M-Audio's mobile audio solutions let you use your laptop or any USB- or Firewire-compatible computer to record and play audio whenever and whatever inspiration strikes. One simple connection gives you all the functionality you need for professional desktop music production or making music on the go. M-Audio's mobile audio solutions offer a variety of configurations to suit every need—including preamps, MIDI and digital I/O—all with M-Audio's legendary driver support spanning all popular operating systems and industry communication standards.

- Mobility and simple connectivity for audio and MIDI
- 24-bit/96kHz audio
- Highest quality components, specifications and fidelity
- Low driver latency, zero-latency hardware monitoring
- Software-controlled internal digital mixing and routing
- Unequalled driver support and software compatibility

QUATTRO USB

4-in/4-out USB Audio/MIDI Interface

The ultimate USB audio interface for professional recording needs, Quattro USB lets you use your laptop or any USB-equipped computer to access the world of digital audio. The Quattro USB couples today's latest technology with pristine A-D/D-A converters to bring you a recording tool that is easy to use and delivers the sound quality of systems that cost many times more.



- ◆ 4-in/4-out analog I/O via balanced/unbalanced 1/4" TRS connectors
- ◆ 1x1 MIDI I/O
- ◆ Multitrack recording and mixing without PCI card installation
- ◆ AC-powered components for optimal fidelity
- ◆ Selectable +4dBu/-10dBV input and output levels (in stereo pairs) via hardware supports guitar/keyboard/line inputs as well as professional and consumer equipment.
- ◆ Near zero-latency direct monitoring in stereo pairs
- ◆ More professional connectivity via the optional Omni I/O (takes on the functionality of OmniStudio USB)



EQUIPMENT LEASING AVAILABLE

M-AUDIO

MOBILEPRE USB

USB Bus-Powered Preamp and Audio Interface

A bus-powered USB interface with built-in two-channel mic/instrument preamps, the MobilePre USB eliminates the need for an external power supply, making it ideal for field recording and other laptop-based mobile recording situations. It features two XLR-balanced mic inputs with switchable +48V phantom power, 1/8" mini stereo mic jacks for desktop mics, and two 1/4" TRS balanced instrument/line inputs.

Each input channel also features a gain control knob (+40dB maximum), phantom power indicator, and a signal presence/clipping indicator. Outputs include two unbalanced 1/4" connectors, 1/8" mini stereo line output, and 1/8" mini stereo headphone output with level control. USB MobilePre also offers zero-latency direct hardware monitoring with software control of levels.

- 2x2 16-bit/48kHz analog I/O
- Two XLR-balanced mic inputs with 48V phantom power
- Stereo microphone input (1/8")
- Two balanced/unbalanced 1/4" TRS high-impedance instrument/line inputs optimized for guitars and basses
- Two unbalanced 1/4" line outputs
- 1/8" stereo line output
- 1/8" stereo headphone output with levels
- Zero-latency hardware direct monitoring (mono/stereo) with software level control



COMPUTER HARDWARE

833

MAXIMUM AUDIO TOOLS BUNDLE



All M-Audio mobile audio solution include M-Audio's Maximum Audio Tools bundle - a great collection of software software that lets you make music immediately. Bundle includes:

- Ableton Live Delta audio sequencer (a basic version of Ableton's revolutionary Live audio sequencer software)
- M-Audio ProSession series WAV/REX samples (125MB)
- Arkaos VJ VMP visual performance software (special edition)
- IK Multimedia SampleTank SE VST sample player (special edition)
- DSOUND RT Express VST host with WAV player (special edition)

AUDIOPHILE USB

USB Audio/MIDI Interface with S/PDIF I/O

Audiophile USB is an affordable, no-hassle USB audio and MIDI interface that builds on the success of the Audiophile 2496—to deliver great frequency response, dynamic range and noise specs. AC-powered components that deliver better fidelity than bus-powered circuitry and the bundled Mac and PC drivers let you independently scale bit depth and sample rate (up to 96k) to deliver the lowest USB latency anywhere—whether you're on stage or in the studio.

- Two pairs of analog line-level audio inputs (1/4" unbalanced or RCA)
- Two analog line-level audio outputs (RCA) with level control knob
- S/PDIF in and out (coaxial)
- Supports AC3 and DTS surround sound setups
- 1x1 MIDI I/O
- 1/4" headphone output with level control
- AC-powered for high-performance A/D-D/A



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M-AUDIO

OMNISTUDIO USB

COMPUTER HARDWARE

834

Complete USB Mobile Recording Solution



OmniStudio USB puts everything that you need for audio and MIDI recording, monitoring and mixing in one easy-to-transport package. The on-board mixer provides tremendous routing and monitoring control over a full complement of I/O including mic/line preamps, aux ins, direct outs, separate stereo monitor and record outs, effects send/return and more. OmniStudio USB even has two independent headphone outs with level controls so that you can work with a partner anywhere.

More than just a simple USB interface, the OmniStudio USB gives you more connectivity, flexibility and core studio functionality than any other USB audio product available today. Based on the award-winning Omni Studio, the

- ◆ Two front-panel analog inputs featuring:
 - Neutrik connectors (XLR and 1/4" TRS)
 - Mic/instrument preamps with 66dB gain
 - 48v phantom power, individual gain controls, 20dB pad and signal/clip indicators
- ◆ Line inputs 3/4 (bal./unbalanced 1/4" TRS)
- ◆ Direct monitoring and mono/stereo mode for each input pair
- ◆ 1 x 1 MIDI I/O
- ◆ 4 stereo aux inputs individually routable for monitoring or recording
- ◆ 4 balanced/unbalanced 1/4" TRS outputs
- ◆ Stereo monitor outputs with level control (balanced/unbalanced 1/4" TRS)
- ◆ Stereo record outputs independent of monitor level (balanced/unbalanced 1/4" TRS)
- ◆ Two stereo headphone outputs with individual level controls (1/4" TRS)
- ◆ Effects send with level controls for each of the four D/A or direct monitor signals (unbalanced 1/4")
- ◆ Stereo effects return (bal/unbal. 1/4" TRS)
- ◆ +4dBu/-10dBV hardware switching for line inputs 3/4, direct outs 1/2 and 3/4

About USB and Firewire

Offering excellent plug-and-play mobility compared to PCI, the USB and Firewire protocols each have their own inherent bandwidth that dictates how much audio it can transfer. Where PCI handles 132MB/sec., Firewire delivers 30MB/sec and USB 1.5MB/sec. Greater bandwidths allow you to record more tracks simultaneously than do lower bandwidths. USB meets the needs of the majority of users who tend to record one or two tracks at a time. Supplied driver control panel allows you to manage bandwidth according to the needs of each project.

FIREWIRE 410

4-in/10-out Firewire Mobile Recording Interface

Delivering powerful performance for Firewire (IEEE1394) equipped computers, the 410's 4-in/10-out configuration is perfect for personal recording where you build up tracks one at a time yet need multiple outputs. FireWire 410's ten outputs allow your computer-based recording system to behave more like a traditional analog recorder or sampler, where signals are bussed to multiple channels of an analog mixer or to multi-channel monitoring systems. Software-controlled DSP handles all internal routing and mixing.



- ◆ Two analog input channels each featuring:
 - Balanced XLR and unbalanced 1/4" mic/line inputs
 - Preamp with level control, signal/clip LEDs and amazing available gain of 66dB
 - 48v phantom power (globally switched)
 - 20 dB pad
- ◆ 8-line outputs with signal/clip LEDs (unbalanced 1/4" @ -10dBV)
- ◆ Stereo monitor level control
- ◆ Two-channel S/PDIF digital I/O (coaxial and optical, switched)
- ◆ 1 x 1 MIDI I/O with bypass for stand-alone operation
- ◆ Two headphone outs with individual level controls (1/4" TRS)
- ◆ Two Firewire high-speed ports for connection convenience
- ◆ Low-latency software monitoring;
- ◆ Zero-latency direct hardware monitoring
- ◆ AC3 and DTS surround support via digital output
- ◆ Analog outs can directly drive up to 7.1 surround w/o decoder using included software bass management
- ◆ Standalone operation via AC adapter



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The best-selling audio cards in the world, the Delta series span all studio configurations, feature sets, operating systems, and price points. Full-duplex architecture allows recording and playback simultaneously, while low-latency drivers and zero-latency hardware monitoring insure that your overdubs will be in sync. Each card features outstanding driver compatibility and stability.

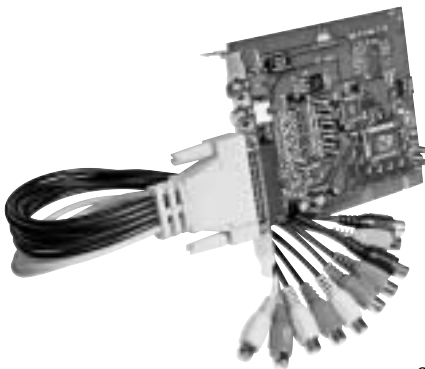
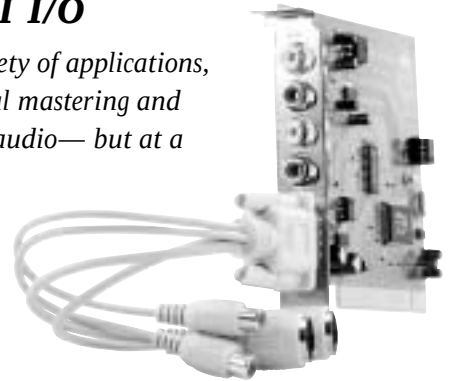
- Ultimate support for multitrack hard disk recording and software synths/samplers
- Highest quality components, specifications and fidelity
- Unequalled driver support and software compatibility
- 24-bit/96kHz full-duplex audio
- Low driver latency (as low as 1.5ms)
- Zero-latency hardware monitoring
- 36-bit internal DSP with powerful software-controlled digital mixing and routing
- Expansion flexibility in combining and synchronizing Delta cards
- S/PDIF provides bit-accurate digital transfers and SCMS copy protection control
- Surround-sound ready-outputs AC3 and DTS over S/PDIF to an external decoder

AUDIOPHILE 2496

4-in/4-out PCI Audio Card with S/PDIF and MIDI I/O

The Audiophile 2496 is an all-in-one high fidelity soundcard solution for a wide variety of applications, ranging from multi-track recording, LP/cassette-to-CD and digital transfers, to digital mastering and computer-based home theater. It delivers uncompromising professional grade digital audio— but at a price anyone can afford.

- 2x2 analog I/O (unbalanced gold-plated RCA jacks) utilizing professional 24-bit, 96kHz conversion.
- Digital S/PDIF (coaxial) I/O and MIDI I/O provide connectivity to both digital devices, and the world of MIDI.
- Use the S/PDIF I/O for DVD surround sound playback with an external decoder.
- Offers powerful digital mixing, routing and monitoring capabilities with included software, as well as control over SCMS (Serial Copy Management System).



DELTA 410

4-in/10-out Audio Card with Digital I/O

Recordings are often put together one track at a time (a guitar solo here, a vocal there) as opposed to being all tracked simultaneously. So why pay for inputs you don't need. The Delta 410's 4-in/10-out configuration is created with exactly this type of recording approach in mind. You get two analog and one stereo digital input to accommodate keyboards, preamps, CD/MiniDisc players, DATs and other gear. Ten outputs place the I/O emphasis where you need it—flexibility in connecting to a mixer and effects. This configuration allows your computer-based recording system to behave more like a traditional analog one recorder or sampler, where signals are bussed to and from a mixer in the analog domain.

- 4x10 24-bit/96kHz full-duplex recording interface
- Two analog inputs (-10dBV unbalanced RCA) for line-level gear
- 8 analog outputs (unbalanced RCA)
- S/PDIF digital I/O with SCMS copy protection control (coaxial)
- AC3 and DTS surround support via digital output. Directly drive up to 7.1 surround without decoder with included software.
- Comprehensive digital mixing, routing, and monitoring capabilities with the bundled Delta Control Panel software

M-AUDIO

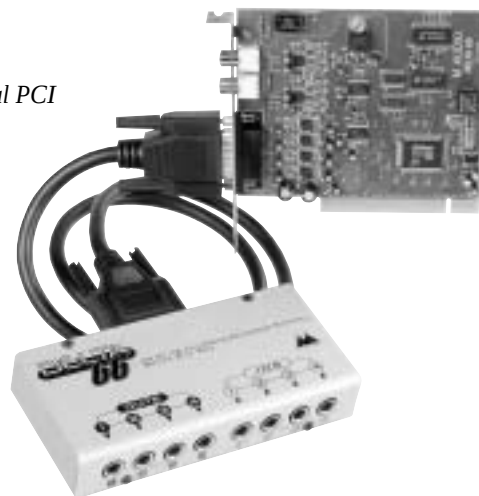
DELTA 44/DELTA 66

COMPUTER HARDWARE

836

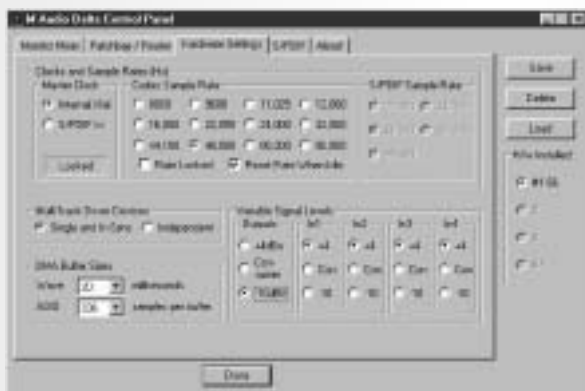
Professional 4-in/4-out Audio Cards

A top choice in PCI-based digital audio solutions, the Delta 44 and Delta 66 are professional PCI audio cards connected to a analog break-out box that provides four analog audio input and outputs (1/4" TRS), compatible with balanced or unbalanced +4dB or -10dB signal levels. Also included is Delta Control Panel software, which allows you to control their comprehensive routing, monitoring, and mixing capabilities. Besides their superb sound quality, performance, and driver support, they provide 96 kHz recording, zero latency monitoring, digital mixing, and controllable SCMS. Otherwise identical, the Delta 66 adds a S/PDIF digital I/O with SCMS copy protection control (coaxial). If you need more professional connectivity, simply add the optional Omni I/O (see Omni Studio below). With the Omni I/O as their front end, they gain 2 pristine mic preamps, an additional 8 inputs to its mixing section, 2 headphones sends, an FX send and return, dedicated monitor outs and record outs, auxiliary input record bussing, and more.



- 4x4 or 6x6 24-bit/96kHz full-duplex recording interface
- PCI Host card with external audio break-out box
- 4x4 analog break-out box (balanced/unbalanced 1/4" TRS)
- Analog I/O configurable for +4dB and -10dB signal levels
- PCI card provides S/PDIF I/O on RCA jacks (Delta 66 only)

The Delta control panel offers full control over features such as sample rate, direct monitoring, master/slave sync, surround and bass management, latency and more—for up to four Delta cards



All Delta cards contain a 36-bit embedded DSP that offers the feature set of a full project studio mixing console. The Delta DSP seamlessly integrates analog and digital inputs with the ability to route them via a software-driven patchbay/router. You get flexibility in analog and digital configurations with extremely fast throughput for low-latency software monitoring. A single unified control panel provides settings for clock and sample rates, buffer sizes, individual signal levels for every input and output, adjustable +4dB/-10dB pad controls, and digital I/O control on up to four installed Delta cards. All controls are also easily accessible through most professional audio software applications for seamless integration and operation.

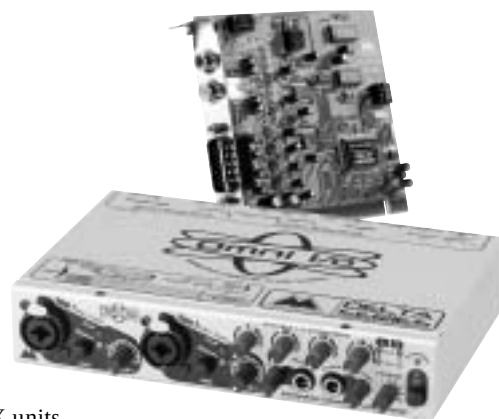
OMNI STUDIO

Delta 66 + Omni I/O -

The Complete PCI Desktop Studio Solution

A unique and powerful songwriting/production tool — the Omni Studio is the ultimate complete recording package for Mac and PC, offering versatility and performance that will change the way you make your music. Consisting of the Delta 66 PCI card, and the Omni I/O interface, Omni Studio is designed to let you record, monitor and mix projects while streamlining your setup and giving you the tools you need to produce music more professionally and easily than ever before. Omni Studio allows you to:

- ◆ Mix to digital (CD, DAT, minidisk) and cassette without re-patching cables.
- ◆ Record vocals, guitars, keyboards, software synths, loops, samples, turntables, and external FX units.
- ◆ Monitor keyboards, MIDI performances, FX sends before recording the FX, using 2 headphones and/or speakers.



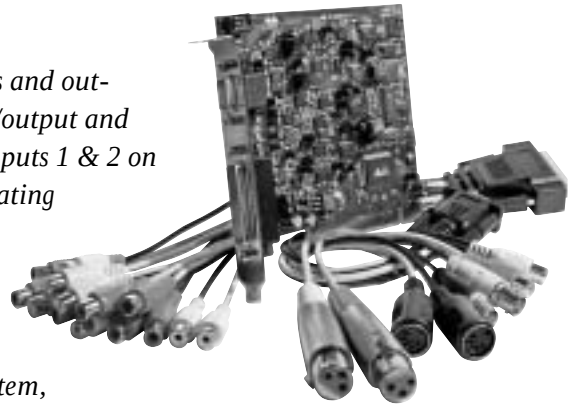
EQUIPMENT LEASING AVAILABLE

DELTA 1010LT

10-in/10-out Virtual Studio

The Delta 1010-LT offers a host of interfaces including, eight analog inputs and outputs, two XLR microphone inputs with preamps, S/PDIF and MIDI input/output and wordclock I/O, allowing audio from a variety of sources to be connected. Inputs 1 & 2 on XLR jacks can be set to receive a balanced line or a mic level signal, eliminating the need for an outboard mic preamp. The S/PDIF input offers control over the SCMS copy protection protocol. The card offers zero latency hardware monitoring, and the bundled Delta Control Panel software can set and even fine-tune the input line level.

Delta 1010-LT outputs can be connected to an external mixer or sound system, while the S/PDIF outs feed your digital mixdown deck. The Control Panel Software also controls a hardware mixer embedded in the card, giving still more routing and mixing control. Use the MIDI I/O for your MIDI controllers and sound modules, and finally, connect to wordclock capable devices for rock-solid sample clock synchronization.



- 10-in/10-out 24-bit 96kHz audio card with mic preamps, S/PDIF and MIDI I/O
- 8x8 analog I/O (unbalanced gold-plated RCA connectors at -10dBv to +4dBu)
- Two balanced-XLRmic/line inputs with preamps (mic or line level is selected via hardware jumpers).
- +4dBu/-10dBV operation individually switched in software

- 1x1 MIDI I/O
- S/PDIF digital I/O with SCMS copy protection control (coaxial)
- External synchronization via word Clock I/O on BNC connectors
- AC3 and DTS surround support via digital output. Directly drive up to 7.1 surround without decoder with included software.
- Comprehensive digital mixing, routing, and monitoring capabilities with bundled Delta Control Panel software

DELTA 1010

10-in/10-out PCI-Based Digital Audio System

Recognized around the world as the top choice in host-based PCI digital audio solutions, the rackmount Delta 1010 is designed to handle the needs of the most demanding project and professional studios.

Like the Delta 1010LT, the Delta 1010 functions as a 10-input, 10-output digital recording interface. However, it consists of a PCI card and breakout box and features eight balanced/unbalanced 1/4" TRS analog inputs and outputs plus coaxial S/PDIF I/O—and doesn't have mic preamps. The sturdy rack-mount unit houses all of the A/D and D/A converters, keeping them away from the internal noise of your computer and assuring the best audio performance possible.

(D/A converters rated at 117dB, A/D converters at 110dB). Also located on the rack unit is Word Clock and MIDI I/O.



- 8x8 analog I/O (balanced and unbalanced 1/4" TRS)
- S/PDIF digital I/O with SCMS copy protection control (coaxial)
- 1x1 MIDI I/O
- External synchronization via word Clock I/O on BNC connectors
- AC3 and DTS surround support via digital output. Directly drive up to 7.1 surround without decoder with included software.
- Combine several Delta 1010's for as much I/O as you need
- Comprehensive digital mixing, routing, and monitoring capabilities with bundled Delta Control Panel software

M-AUDIO

USB MIDISPORT SERIES

COMPUTER HARDWARE

838

Midiman USB MIDI Interfaces

Midiman's USB MIDISPORT series is the world's best selling of family of USB MIDI interfaces. Available in various port configurations, they work with USB-equipped Mac and Windows computers to assure reliable, immediate MIDI transfers. Installation is a breeze—no computer disassembly, no jumpers to set, and no I/O addresses, IRQ's or DMA channels to configure. Expansion is just as easy—just plug in additional MIDISPORT units for more MIDI ports.

They All Feature:

- ◆ Available in 16, 32, 64 and 128 MIDI channel configurations
- ◆ High speed connection between the interface and computer via USB
- ◆ Easy expansion — just plug in additional MIDISPORT units as needed
- ◆ MIDI activity LEDs for each port
- ◆ True plug-and-play installation -no tools required
- ◆ Interfaces are hot swappable meaning they can be plugged or unplugged from the USB bus at any time
- ◆ The smaller interfaces get power from the host computer via USB so no external power supply required — ideal for laptop computers. Each includes a 6' USB cable
- ◆ Each interface is covered by a lifetime warranty

USB MIDISPORT 1x1

Sub-Compact, Single Port USB MIDI Interface



- ◆ 1 MIDI In port and 1 MIDI Out port provides 16 MIDI channels
- ◆ Power to the interface is supplied by the computer via the high-speed USB connection
- ◆ LED indicates the USB port is functioning properly.

- ◆ Sub-compact lightweight design — ideal for use with notebook computers, as an entry level interface or as a simple interface where only limited MIDI I/O is required.

USB MidiSport 1x1.....48.95

USB MIDISPORT 2x2

Sub-Compact, Dual Port USB MIDI Interface



Same as 1x1 PLUS—

- ◆ 2 MIDI In and 2 MIDI Out ports provide 32 MIDI channels
- ◆ USB/MIDI Thru button lets you play your gear even when the computer is turned off — data from MIDI In-A is sent to MIDI Out-A and data from MIDI In-B is sent to MIDI Out-B.

- ◆ Sub-compact design with all-metal casing — ideal for use with notebooks, as an entry level interface or simple MIDI setups

USB MidiSport 2x2.....69.95

USB MIDISPORT 2x4

Multi-Port USB MIDI Interface

Same as 2x2 PLUS—

- ◆ 2x4 architecture lets you go beyond the MIDI specs limit of 16 channels. Two separate 16-channel input ports allow your system to accept up to 32 discrete MIDI input channels, and four individual 16-channel output ports allow you to address up to 64 discrete MIDI output channels.



USB MidiSport 2x4.....Call

USB MIDISPORT 4x4

Multi-Port USB MIDI Interface

Same as 2x2 PLUS—

- ◆ 4 MIDI In and 4 MIDI Out ports provide 64 MIDI channels
- ◆ 1/2 rack design with all metal casing — ideal for desktop music systems with moderate MIDI requirements, for extra I/O in an expanded system, or as a truly flexible and roadworthy interface for notebook computers.



USB MidiSport 4x4.....134.95



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USB MIDISPORT 8x8

Rackmounted Multiport USB MIDI Interface/ SMPTE Synchronizer



The flagship of the MIDISPORT line, the USB MIDISPORT 8x8 is a powerhouse with features and bandwidth to spare. It features rock-solid drivers on both Mac and Windows, USB and serial capability (in addition to being a gateway to the high speed and convenience of USB, the MIDISPORT 8x8 can be connected to the "legacy" serial ports of older computers) and full SMPTE implementation.

FEATURES

- ◆ 8 MIDI In and 8 MIDI Out ports provide 128 MIDI channels with the 8th I/O ports located on the front panel for easy access
- ◆ High-speed connection to USB-equipped PC or Mac computers as well as a 8-pin serial connection for older PC or Macs
- ◆ Select between computer-based modes—USB, PC Serial and Mac Serial as well as the four standalone modes — MIDI Patchbay, Thru, Cable Test and SMPTE Writer
- ◆ MIDI Reset (panic) button send an "all notes off" and "all controllers off" message to the MIDISPORT outputs in the event of a stuck note or MIDI overload.
- ◆ THRU Mode sends every message at the MIDI In ports on to all of the Out ports, helping diagnose connection problems.
- ◆ Includes an 8-Pin serial port for non-USB Mac and Windows 95/98 computers.
- ◆ Operates as a stand-alone MIDI patchbay and a SMPTE to MTC synchronizer
- ◆ Bundled remote control software (Mac and Windows compatible) enables you to control the interface's SMPTE functions and MIDI patchbay configurations from your computer. Configuration settings can be saved to disk and reloaded for later use.
- ◆ Built-in "MIDI cable tester" mode lets you test a MIDI cable by connecting it between In and Out ports on the front panel.
- ◆ Create and store up to 8 MIDI patchbay programs (routing any combination of MIDI Input to MIDI Output).
- ◆ MIDI In/Out Indicator LEDs (1-8)
- ◆ 1 RU all metal construction — ideal for larger MIDI or hard disk recording systems
- ◆ Powered by a DC 9v wall wart power supply

SMPTE Timecode Operation

- ◆ SMPTE Time Code Writer/Reader supports 24, 25, 29.97, 30 drop or 30 non-drop frame LTC SMPTE formats.
- ◆ Converts SMPTE LTC to MIDI Time Code (MTC) for syncing a video deck or multi-track recorder with MTC capable software.
- ◆ "Writing" and "Locked" LEDs indicate SMPTE writer and reader/regenerator status, which indicates that a valid SMPTE code is recognized at the SMPTE In jack.
- ◆ The Flywheel Control, found in the included Remote Control software, selects the number of frames, from 1 frame to 255 frames, or infinite flywheel (Jam sync), that will be tolerated if there is a dropout in the incoming SMPTE timecode signal.
- ◆ 1/4" SMPTE I/O jacks on the rear panel

MIDIMAN PC & MAC COMPATIBLE MIDI INTERFACES

	BiPort 2x4	MIDISport 1x1	MIDISport 2x2	MIDISport 4x4	MIDISport 8x8
# of MIDI In Ports	2	1	2	4	8
# of MIDI Out Ports	4	1	2	4	8
# of MIDI In Channels	32	16	32	64	128
# of MIDI Out Channels	64	16	32	64	128
Computer Connection	9-Pin Serial	USB	USB	USB	USB/Serial
Mac OS Requirements		8.6 or higher	8.6 or higher	8.6 or higher	8.6 or higher
Required Mac MIDI driver	OMS (included)	OMS (included)	OMS (included)	OMS (included)	OMS (included)
Windows Compatibility	95/98/NT/2000	98/ME/2000	98/ME/2000	98/ME/2000	98/ME/2000
SMPTE Reader/Generator	Yes	No	No	No	Yes
Footprint	Compact	Sub-Compact	Compact	1/2 Rack	1RU
Power Requirements	9V DC wall wart	Self powered	Self powered	Self powered	9V DC wall wart

M-AUDIO

OXYGEN 8

COMPUTER HARDWARE

840



25-Key Portable USB MIDI Keyboard Controller

A new breed of controller designed to meet the needs of today's electronic musicians, Oxygen 8 puts you in control of any 8 MIDI-assignable parameters within your favorite software programs. Oxygen 8 is also a USB MIDI interface that speaks directly with your computer without any extra devices. You don't need a MIDI interface for this keyboard interface.

Applications:

- ◆ The software synth is here to stay, and along with it comes dozens of parameters to be tweaked. Oxygen 8 puts your hands on any 8 parameters of your choice in real time.
- ◆ Oxygen 8 lets you get deeper into your software programs, to get more out of them, to experiment and push them to their limits.
- ◆ Gives you more freedom on the stage than you've ever had before, dynamically increasing the possibilities available to you.
- ◆ Instead of taking hours to program drums with a mouse, use Oxygen 8 to play grooves into your program in real time. Use the 8 knobs to manipulate the dynamics, feel, and FX.
- ◆ Synthesists can use Oxygen 8 to gain access to, and to automate parameters that exist deep within their hardware, making it easier to get more out of them without having to navigate through dozens of menus.

Features:

- ◆ 8 MIDI assignable knobs, one assignable slider
- ◆ Inputs and outputs 16 channels of MIDI to and from your computer using the power and convenience of your USB port.
- ◆ Fully functional, velocity sensitive 25 key MIDI controller keyboard, capable of sending all MIDI messages, such as modulation, pitch-bend, MIDI volume, and more.
- ◆ Powered via USB port or 6 "AA" batteries, or with the supplied power supply.

What is a MIDI Controller?

Unlike traditional keyboards, MIDI controllers have no sound built into them. They are optimized to control other MIDI sound sources such as synthesizers, samplers and today's popular software synths. For example, here's how you play sounds within a software program: Because of M-Audio's driver technology, your computer will recognize your Keystation as a MIDI interface with which it can communicate. By playing the keyboard, you send MIDI information to your computer, which triggers sounds in a software program that are played via the audio output to your computer's sound card. You can also send MIDI via the Keystation's dedicated MIDI output port to external MIDI sound modules like synths and samplers.

OZONE

USB Audio/MIDI Mobile Workstation

Your laptop changed the way you live—and now new mobile tools can change the way you make music. The revolutionary Ozone is an all-in-one keyboard, MIDI control surface, mic preamp, USB audio interface and USB MIDI interface that's no bigger than a laptop. Combined with your computer and software like Reason and Live, Ozone provides a complete personal mobile studio from input to output.



MIDI Features:

- ◆ Built-in 16-channel USB MIDI interface
- ◆ 25-note keyboard with full-sized keys
- ◆ Eight assignable MIDI controller knobs
- ◆ Pitch and mod wheels
- ◆ Sustain pedal jack
- ◆ Two MIDI outs (one from computer, one from Ozone)

Audio Features:

- ◆ Built-in 2 x 2 24-bit/96kHz audio interface
- ◆ Stereo out (balanced 1/4" TRS)
- ◆ Mic input (XLR) with built-in preamp and phantom power
- ◆ Instrument and Stereo aux in (bal. 1/4" TRS)
- ◆ Stereo headphone out
- ◆ Monitor switch for zero-latency monitoring



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RADIUM

49- and 61-Key USB MIDI Controllers with Realtime Knobs and Sliders

A new breed of controller, Radium is designed to meet the needs of today's electronic musicians. The Radium 49 (49-key/4 octave) and Radium 61 (61-key/5-octave) give even the most serious players a keyboard that they can love, combined with 16 controllers that can be mapped to any MIDI-assignable parameters in your hardware and software rig. The complement of 8

MIDI-assignable sliders are ideal for mixing with virtual faders, while the 8 MIDI-assignable knobs are great for panning and effects send—and both are great for real-time performance control of synth parameters.

They are also a USB MIDI interface that speaks directly with your computer without any extra devices. Radium is perfect for applications like real-time soft synth control, virtual mixing, drum programming, live performance and more. And they weigh in at only 7 lbs. so you can take them anywhere.



MAXIMUM AUDIO TOOLS BUNDLE



All M-Audio MIDI controllers include M-Audio's Maximum Audio Tools bundle - a great collection of software software that lets you make music immediately. Bundle includes:

- Ableton Live Delta audio sequencer (a basic version of Ableton's revolutionary Live audio sequencer software)
- M-Audio ProSession series WAV/REX samples (125MB)
- Arkaos VJ VMP visual performance software (special edition)
- IK Multimedia SampleTank SE VST sample player (special edition)
- DSound RT Express VST host with WAV player (special edition)

Radium Features

EASY CONTROL

Controls aren't buried mysteriously in obscure menus. The keys have a second layer of functions, allowing you to program MIDI control information directly from the black and whites. Here's how it works:

- ◆ Press the MIDI/Select button
- ◆ Press the note on the keyboard with label corresponds to the parameter you wish to change
- ◆ Use the Data Entry slider to select the value or enter numeric values by pressing the keys labeled with numbers

- ◆ 49- or 61-note keyboard
- ◆ Who wants to mix with a mouse? Use Radium's 8 sliders to control your virtual faders, while Radium's 8 knobs control pan, effects send amount and much more.
- ◆ USB port routes 16 channels of MIDI I/O directly to and from your computer
- ◆ Separate MIDI Out jack routes MIDI signals from your computer to control external gear—no separate interface needed
- ◆ MIDI Out jack routes MIDI signals from Radium to control external gear
- ◆ Pitch and modulation wheels
- ◆ Octave up and down buttons extend keyboard range
- ◆ Fully functional, MIDI controller keyboard sends all MIDI messages, such as modulation, pitch-bend, MIDI volume and more
- ◆ Keyboard doubles as a data input device
- ◆ Lightweight (7 lbs.)—easy to take wherever the music is
- ◆ Powered via USB port, 9v DC power supply or AC Adapter

MACKIE CONTROL

Automated Touch-Sensitive Control Surface

Mackie Control is a nine-fader (eight channels and master) MIDI controller that provides in-depth mixing, editing, automation, and navigational control for any supported digital audio workstation. The Mackie Control adheres to a compact, desktop-style design and offers a full range of professional-grade features and controls.

Mackie Control has eight channel strips, each of which includes a Penny and Giles 100mm touch-sensitive motorized fader, mute, solo, and record arming buttons, Signal LED, a Channel Select button, and a V-Pot that can be used to control panning, send levels, EQ, dynamics, and other DSP plug-in modules. The eight channels can be bank-switched to control as many channels as the user-selected software supports. Various software parameters are displayed on a back-lit LCD screen that provides channel metering and track naming in addition to DSP and dynamics parameters. Mackie Control also supports a full automation assignment section, edit buttons, Undo, Redo, and Save buttons, and a Shift Modifier that offers dual functionality for specific commands. Complete navigational control is provided in a tape-style transport with Jog/Shuttle wheel, Loop In/Out points, and timeline quick jump buttons. All controls live within a small, tabletop, analog-style control surface with a backlit LCD display that is comfortable and enjoyable to use.

Mission-specific software "hooks" (or specialized commands) have been written by MOTU, Steinberg, and Cakewalk to support the Mackie Control. DAW-specific Lexan overlays that fit right over the master section can be used to "personalize" the Control for SONAR, Digital Performer, Nuendo or Cubase SX. Additional support and overlays will be available in the future for applications like Syntrillium's CoolEdit Pro.



MACKIE CONTROL EXTENDER



For those who need more than nine faders, the Mackie Control Extender is a channel extension add-on option for the Mackie Control.

Slightly narrower than a full Mackie Control, the Mackie Control Extender has all the channel strip features of the Mackie Control—only without the master section. Multiple Extenders can be used with a single Mackie Control to emulate a large-scale control surface with as many faders and pots as desired.

What is a "Lexan Overlay"?

A Lexan overlay is a thin sheet of polycarbonate that has DAW-specific nomenclature on the front side and an adhesive on the back. It is designed to be placed over the master section of the Mackie Control and associate the buttons and controls with specific software commands. Because the Mackie Control is supported by a number of different DAW applications, each DAW manufacturer has been given the opportunity to design and implement their own overlay. Using the overlay that corresponds with your DAW software will give you a personalized, mission-specific controller with all the commands for your particular platform at your fingertips.

MACKIE CONTROL

Mackie Control C4—Dedicated Plug-In/Virtual Instrument Controller

The Mackie Control C4 is a highly sophisticated plug-in and virtual instrument controller that provides four banks of eight V-Pots each, and four full-size displays for instant access to as many as 32 separate software parameters without the need for scrolling or bank switching. The perfect tool for desktop music makers, the C4 lets you intuitively control multiple plug-ins and virtual instruments simultaneously with shortcut buttons and four independent backlit LCD displays. Computer-based music-making has never been this fast.



- ◆ Eliminates the need to constantly “bank switch” a standard control surface display in order to access parameter-rich software modules.
- ◆ Has multiple displays and corresponding knobs for simultaneous access of up to 32 parameters of a given software module.
- ◆ Function buttons beneath the displays and knobs let you select the arrangement of those parameters and how they show up on screen.
- ◆ The C4 also acts as a “quick fix” tool for fader and pan settings across 32 channels, and can be used independently or with additional Mackie Control and/or Mackie Control Extenders.

BABY HUI Compact Touch-Fader Master Controller



Baby HUI is the direct descendant of HUI (Human User Interface). Originally released by Mackie in 1997, HUI quickly became one of the audio industry's first totally integrated control surfaces for digital audio workstations. With a similar feature set of single-button automation, editing, and navigational commands, complimented with eight full-featured channel strips that feature a touch-sensitive motorized fader, Baby HUI offers professional-grade features and capabilities in a compact, affordable package.

- ◆ Baby HUI is an eight-fader MIDI controller that provides in-depth mixing, automation, and navigational control for any digital audio workstation that supports the HUI MIDI mapping protocol.
- ◆ Supports all the major features found on the original HUI - only in a smaller footprint and at a more affordable price point.
- ◆ Perfect for DAW enthusiasts on a budget, or space-conscious engineers who have a very small area to use with a controller.
- ◆ Eight channel strips that include a 60 mm touch-sensitive motorized fader, mute button, solo button, and a Signal LED.
- ◆ Each channel strip also has a multi-functional rotary encoder that can be used for pan or send level control, or can be pushed in to provide Channel Select, Record Arming, or Automation Arming functions.
- ◆ One of the key features of Baby HUI is the extensive software support that already exists among the various DAW platforms - today! Baby HUI will operate and interact with any software that supports the HUI MIDI Mapping protocol. This is a HUGE advantage over generic MIDI controllers that require you to map every single control with every software parameter - a process that can take hours away from being creative and enjoying the product.
- ◆ Software Window Open/Close Buttons
- ◆ For any HUI-supported system, simply plugging Baby HUI into your computer's MIDI interface, accesses the control surface or console manager within the software, and activates HUI as a controller. As long as the MIDI connections and software interfacing is correct, Baby HUI will “wake up” and allow itself to be used.
- ◆ In/out buttons for location point insertion on the fly
- ◆ Easy to use MIDI In/Out connections
- ◆ Supports a full automation assignment section, display buttons, and Undo button and a Shift Modifier to double up certain controls.
- ◆ Basic navigational control can be achieved via the tape-style transport and RTZ/END buttons, and any channel can be accessed with the Bank/Channel Select buttons.

Powered By:

- ◆ Digidesign Digi001 and Pro Tools
- ◆ MOTU Digital Performer
- ◆ Steinberg Nuendo
- ◆ Steinberg Cubase SX
- ◆ Mackie Mixtreme and Soundscape 32

MACKIE

HUI

Large Touch-Fader Master Controller for Digital Audio Workstations

Designed for video, film, multimedia and recording studio professionals, Mackie's HUI (Human User Interface) was the original hands-on control surface for Pro Tools, Digital Performer, Cubase and Nuendo digital audio workstations (DAWs). HUI did for digital audio workstation users what the mouse did for computer users: Familiar physical movement is instantly translated into precise creative control.

For example, HUI includes what appears to the user to

be familiar rotary knobs... but the DAW 'sees' a virtual interface that can be stored and recalled digitally.

This complete hardware workstation console has the user-friendly features and ergonomics that Mackie is renowned for... including instantly touch-updatable 100mm motorized faders, transport controls, DAE plug-ins control, keyboard shortcuts, window buttons - even built-in mic preamps! What used to take multiple mouse moves and clicks can now be done at the push of a single button. Instead of individually adjusting "faders" on screen, users can now enjoy hands-on tracking and mixing with touch-updatable motorized faders. With full automation control and recall capabilities, HUI is anything but a conventional fader pack. For serious professionals who work day in and day out with Pro Tools, Digital Performer, Cubase or Nuendo, HUI can significantly boost productivity through direct hands-on control.



FEATURES

- ◆ Eight 100mm professional grade, touch update, readily re-assignable, motor faders. The quick reactive, conductive metalized fader knobs respond immediately to touch control without separate switch enabling or disabling.
- ◆ The motor fader design utilizes a high resolution, tightly tuned servo amplifier to reduce annoying fader chatter, and the conductive plastic fader servo track greatly extends fader lifetime.
- ◆ Per channel 4-character LED scribble strip, for updating the Channel ID on the fly and for displaying channel attributes: e.g. group membership, signal phase, source, routing, etc.
- ◆ Dedicated per channel Pan and Send encoders and controls for routing, assignment, status, edit and automation control.
- ◆ "V-Pots" is a cost effective and novel Mackie "soft" knob design, with illuminated LED segments in the collar that update to reflect values according to function.
- ◆ Highly tactile illuminated switches for mute, solo, automation write and record-ready enabling.
- ◆ Dual LED ladders per channel for level display status - e.g. mono/stereo levels, dynamics, etc.
- ◆ Dedicated plug-in section to edit and automate your favorite DSP functions. Controllers include four rotary encoders with enable switches and a 2x40 LCD panel, with each parameter section containing callout display and precise values. Plus easy paging, assignment and bypass switching.
- ◆ Sectioned switch matrix containing automation controls, status views and F-keys for macro style operations.
- ◆ Fader view, recall, and reassignment/ dedicated bank and channel selectors.
- ◆ Analog control room section with talkback, and assignable routing for three stereo or surround audio pairs, with separate output trims and a Master control. Additional master mute, dim, mono monitoring and discrete one to one switching are included in this section.
- ◆ Transport controls, jog encoder, zoom and navigation cursors, locate/number pad.
- ◆ Rear panel includes two patchable mic preamp sections, an external talkback mic pre-amp and trigger, three pairs of analog I/O jacks (configurable for stereo or surround application), headphone out, four general purpose I/O trigger jacks, 2 sets of ADB mouse/keyboard through-ports, MIDI I/O, an expansion port for joystick or additional V-POTS control and an RS-232/422 port for direct computer connection.

HUI is organized into seven parts:

- In the upper-left corner is an assign section where internal mix bus and physical hardware I/O assignments are made.
- The main part of HUI is composed of eight assignable channel strips with big-console-grade, 100mm motorized faders and Mackie's innovative V-Pot rotary controls.
- In the upper-right corner of the interface is a vacuum fluorescent alphanumeric display for controlling the parameters of DAE-compatible plug-Ins.
- Below the DSP section is a switch matrix for assigning channel status and/or global session attributes.
- The lower right-hand section, with keypad and jog wheel, dedicated keys, and even extra cursor controls, is dedicated to transport/locate functions.
- The lower left contains a keyboard shortcut section bank and selector buttons to switch between various Pro Tools screens.
- Shoe-horned in the middle of all this is a complete analog control room section with 3 sets of speaker/phones controls and built-in talkback mic. (Trim controls for the two integrated mic preamplifiers and talkback mic are on the back.)



	Baby HUI	Mackie Control	HUI
Controls			
Faders, type	(8) 60mm motorized touch sens	(9) 100mm motorized touch sens	(9) 100mm motorized touch sens
Potentiometers	(8) Rotary Encoders w/Push Select	(12) V-Pots w/LED indicator ring	(12) V-Pots w/LED indicator ring
Channel Metering	Channel Sig LED	Sig LED & LCD Display Metering	Channel and Master LED Ladders
Dynamic Controls	No	EQ, Comp, Gate	EQ, Comp, Gate
DSP Control	Send Levels	Fat Channel LCD Display w/4 V-Pots	Fat Channel VFD w/(4) V-Pots
Monitor	Controller Only	Controller Only	6x6 Monitor Matrix
Expansion Options	Two or more on multi-port MIDI interface	Mackie Control Extender and Fat Channel	Two or more on multi-port MIDI interface
Automation Modes	Write, Read, Touch, Off	Write, Read, Touch, Trim, Off	Write, Read, Touch, Trim, Latch, Off
Automation Arming	Faders, Mutes, Pans, Send Levels	Faders, Mutes, Pans, Send Levels	Faders, Mutes, Pans, Send Levels
Window Open/Close	Edit, Mixer, Transport, Mem Loc	Edit, Mixer, Instruments, Returns, Busses	Edit, Mixer, Transport, Mem Loc
Editing Controls	Undo	Cut/Copy/Paste	
SOFTWARE			
Digidesign Pro Tools	Yes	No	Yes
MOTU Digital Performer	Yes	Yes	Yes
Steinberg Nuendo	Yes	Yes	Yes
Steinberg Cubase SX	Yes	Yes	Yes
Cakewalk Sonar	No	Yes	No
Syntrillium CoolEdit Pro	No	Yes	No
Soundscape 32	Yes	Yes	Yes
Mixtreme	Yes	No	Yes
Dimensions	10.1 x 14.6 x 3.4"	17.4 x 17.5 x 3.8" -Extender 10" wide	22.6 x 20.8 x 6.9"
Weight	7.6 lbs.	14 .57 lbs.	37 lbs.

MIXED LOGIC

M24

COMPUTER HARDWARE

846

Dedicated Remote Control Surface

The Mixed Logic M24 provides familiar hands-on control for the computer-based audio production environment. It offers a traditional recording console style interface designed to integrate with your favorite digital audio software and provide the best of the virtual and physical worlds. The M24 will complement your existing recording software, improve your efficiency and enhance the recording experience.

Works with Cakewalk Sonar, Digidesign Pro Tools LE, TDM and HD, Steinberg Nuendo and Cubase, MOTU Digital Performer, Emagic Logic Audio, and C-Mexx C-Console for the Yamaha DSP Factory. Many more programs will currently work with the M24 under generic support.

The M24 has generic modes in addition to the dedicated host modes. One of the generic modes has bi-directional control of over 1000 different MIDI controllers at a time and keeps track of current values as you jump from channel to channel.



FEATURES

Channel Faders

- ◆ Has 24 motorized 100mm touch-sensitive Alps faders with 10-bit internal resolution (1024 steps) and scalable MIDI resolution depending on the host software requirements.
- ◆ The faders are assigned in banks to control the on-screen faders in the host software. If you move a channel fader the corresponding on-screen fader will follow the movement and moving any on-screen fader in the current bank will move the corresponding M24 fader to match the corresponding position.
- ◆ The M24 faders can also create or update automation. The fader range is in steps as fine as 0.1 DB.
- ◆ The M24 faders can control audio track faders, master faders, effect returns and aux inputs, group and volume levels of midi tracks in the normal mode. In flip mode or by reassignment, faders can control just about any other function.
- ◆ Moving any fader will cause the LCD display to display the corresponding fader's channel name and control name and fader value on the top line of the LCD display and update the corresponding channel scribble.

Pan Controls

- ◆ The M24's 24 rotary controls are used for panning and correspond to the on-screen pan controls in the current selected bank. The pan controls can also double for other functions depending on the host software.

Aux Send Controls, Dynamics

- ◆ The top row has 16 rotary controls and 16 switches and LEDs for auxiliary effect send control and dynamics control.
- ◆ The number of available auxiliary send controls per channel depends on the current host software.
- ◆ All 16 controls can also double for other functions including plug-ins depending on the host software.
- ◆ Each channel in the current bank has a select switch that is used to make the Aux Sends, dynamics and EQ and plug in controls active for the selected channel.
- ◆ The 16 switches in the top row are used for Pre / Post select or dynamics functions and double for Window select modes, Function switch modes and Aux send mutes.

Equalizer Controls

- ◆ Imagine having one type of plug in EQ on several channels and another type on several channels and with the push of one switch you could jump from channel to channel and be able to instantly use the same familiar controls to control similar plug in functions.
- ◆ The M24 is the first control surface to feature a complete dedicated equalizer section with 12 controls divided into 4 bands.
- ◆ Controls are provided for Gain, Frequency and Width on each band with a band bypass and EQ type switch for each band.
- ◆ A soft control is provided for access to additional bands assigned in pages (software dependent) or for use as a trim control.
- ◆ Depending on the host software the EQ section can be configured to control a large number of software plug in effects with the ability to use the same common controls for similar functions in effects from different manufacturers across all channels.



MIXED LOGIC

M24

Transport and Navigation

- ◆ The M24 has traditional tape style transport controls with additional controls for navigation, selection, editing, menu control and parameter adjustment.
- ◆ The M24 features a large jog, shuttle control that can be used for audio scrubbing, shuttling and navigation. Audio Scrubbing is similar to rocking the reels back and forth on an analog tape recorder and is used during editing to help locate precise start or end points of a sound.

Zoom, Grouping and Mode Control

- ◆ The M24 has 10 switches that are used for mode select and include functions for Zoom, Grouping, Markers, Plug In mode select, Utility and Function modes and LCD and pan modes depending on host software. The M24 has input and output assignment capabilities as well.

Fader Flip Modes

- ◆ A SWAP switch below the Transport controls is used to swap the channel faders function to control the Aux Buss effect send levels for the currently selected send or the pan values if in Pan Flip mode. In send flip mode the pan controls can become send pan controls and send mutes are also available.

Bank and Channel Swap

- ◆ You can swap the control assignments of the faders, pan controls, solos, mutes and soft controls in banks of 24 channels at a time using the BANK SWAP left, right arrow switches. If you are in the first bank the M24 faders are assigned to tracks 1-24. If you press the right BANK SWAP arrow switch once, the M24 faders would be reassigned to represent channels 25-48 in a song with over 24 tracks and the faders would move to match the new bank's on screen fader positions.
- ◆ Many of the supported software hosts can also shift the 24 assigned channels up or down one channel at a time. By pressing the BUSS 8 / CHANNEL switch and light the corresponding BUSS 8 / CHANNEL led, you will change the function of the BANK SWAP switches into channel shift switches.

LCD Display and Scribble Strip



The M24 features a 40 character by 4-line LCD display. The top row of the LCD display usually is used to display the most recent control and value including a long channel name, long control name and continuously updated control value. The next three lines of the display usually are used to display the abbreviated channel names for all 24 channels active in the current bank and act as channel scribble strips. Line 2 is for faders 1- 8, line 3 is 9- 16 and line 4 is 17- 24. The LCD has many additional modes and menus depending on the current host software. The P1 in the far right of the first row indicates the current page of controls that are active. The M24 has the ability to reassign just about every control on the unit instantly to other functions in several pages allowing the use of faders and other controls for very extensive control of plug ins and controllable instruments (software dependent) extending the total number of available controls.

Select, Solos, Mutes and Soft Switches

- ◆ The M24 has dedicated Channel Select, Solo, and Mute switches, 24 each that correspond to the same on screen channel functions in the host software depending on the current bank.
- ◆ The 24 Solo and Mute switches are always active, and can be easily reassigned to control additional functions.



- ◆ 24 Soft switches are assignable to different functions, such as record enable, depending on the host software. The Soft switches can also be assigned to automation arm, automation mode and punch control depending on the current mode of automation and the host software.
- ◆ The Channel Select switch is used to select the current active channel assigned to the remaining controls for effect sends (aux buses), dynamics, EQ and plug in controls.

Connections

- ◆ 3 MIDI in and 3 MIDI out connectors allow for multi program use or emulation of three eight channel controllers.
- ◆ A USB connector provides a high-speed connection to the host software.
- ◆ 25 pin accessory connector
- ◆ IEC320 Power connector for standard power cords

Weight and Construction

- ◆ Power supply: Two massive internal international switching power supplies (100-250V)
- ◆ Dimensions (WDH): 37.5 x 16.5 x 6" (without armrest or wood trim accessories)
- ◆ Heavy Duty 16 gauge steel chassis
- ◆ Weight 38 lbs (without armrest or wood trim accessories)

RADIKAL TECHNOLOGIES

SAC 2.2

COMPUTER HARDWARE

848

Control Surface

The SAC-2.2 is a hardware control surface that allows you to control nearly all of the functions of your favorite software without using a mouse. It features 9 motorized faders, 12 rotary encoders with 31 segment LED rings, three large 2 x 40 LCDs, a jog wheel and a large locator display.

The SAC-2.2 is compatible with full-featured audio and MIDI recording software as well as virtual instruments and librarian/editor programs. In fact, the SAC-2.2 lets you control several different programs simultaneously, and switch between them in real time. The SAC-2.2 will automatically update itself with the correct operating mode and parameter settings as you switch between programs!

And in addition, this feature is networkable,

meaning it will allow you to control different programs on different computers on your network! Got a great Mac-based sequencer and an awesome PC-based sampler? No problem. One SAC-2.2 integrated into your network means you can control them both - at the same time, without the need to re-configure and re-boot!

The SAC-2.2 offers great fader movement, enhanced encoder LED visuals, USB support, and a very responsive and stable operating system. USB connectivity for both the Mac and PC greatly simplifies setup with Plug-n-Play. With its higher bandwidth, the SAC-2.2's fader performance when using USB is able to keep up with even the most complex automation moves. You'll love how responsive the button action is and how fast the LCD refreshes. And when connecting the SAC-2.2 to your computer using USB, the SAC-2.2's MIDI ports can be utilized as a built-in MIDI interface. Great for hooking up a desktop MIDI keyboard



***The music tool which lets you concentrate on your mix and not your monitor.
Works with every program that matters in pro audio software.***

MOTU Digital Performer:

Superior audio and MIDI software for the professional musician. The SAC-2.2 gives complete access to every significant parameter within the software. An excellent plug-in driver done together with MOTU gives fast access to every essential nuance to create the best professional product. The SAC-2.2 and Digital Performer make a deadly combination.

Digidesign Pro Tools:

The definitive professional post production and audio software. The SAC-2.2 provides total access to the aspects of Pro Tools that not only save you hours of creative time, but allow you to perfect your product like nothing you have ever used.

Nuendo:

One of the future indicators of where professional music production software is going. Native and powerful, taking full advantage of today's power computers. The SAC-2.2 utilizes a control drive written by Steinberg giving complete access to the critical elements of recording and production.

Cubase:

This single program is the most used software in the world. Simple, professional and full of the kind of tools that you need to create the successful mix. The SAC-2.2 works hand in hand to automate and accelerate this complex task.



For Any Inquiries Regarding Your Order, Call Our Customer Service:
(800) 221-5743 • (212) 239-7765 • FAX: (800) 947-2215 • (212) 239-7549

RADIKAL TECHNOLOGIES

SAC 2.2

Samplitude 2496:

Professional software from Germany. Broadcast, post-production and mastering with some of the finest real-time plug-ins available today.

Logic Audio:

The software for the user who wants to create and work within their own complex environment. The SAC-2.2 is there to help you automate and control your dream setup.

Sound Diver:

The defining program for synthesizer editing without leaving your work area. A broad array of nearly every popular instrument of the past 20 years may be accessed directly from the SAC-2.2 through a driver written by Emagic. Put one touch access and parameters back at your fingertips the way it should be.

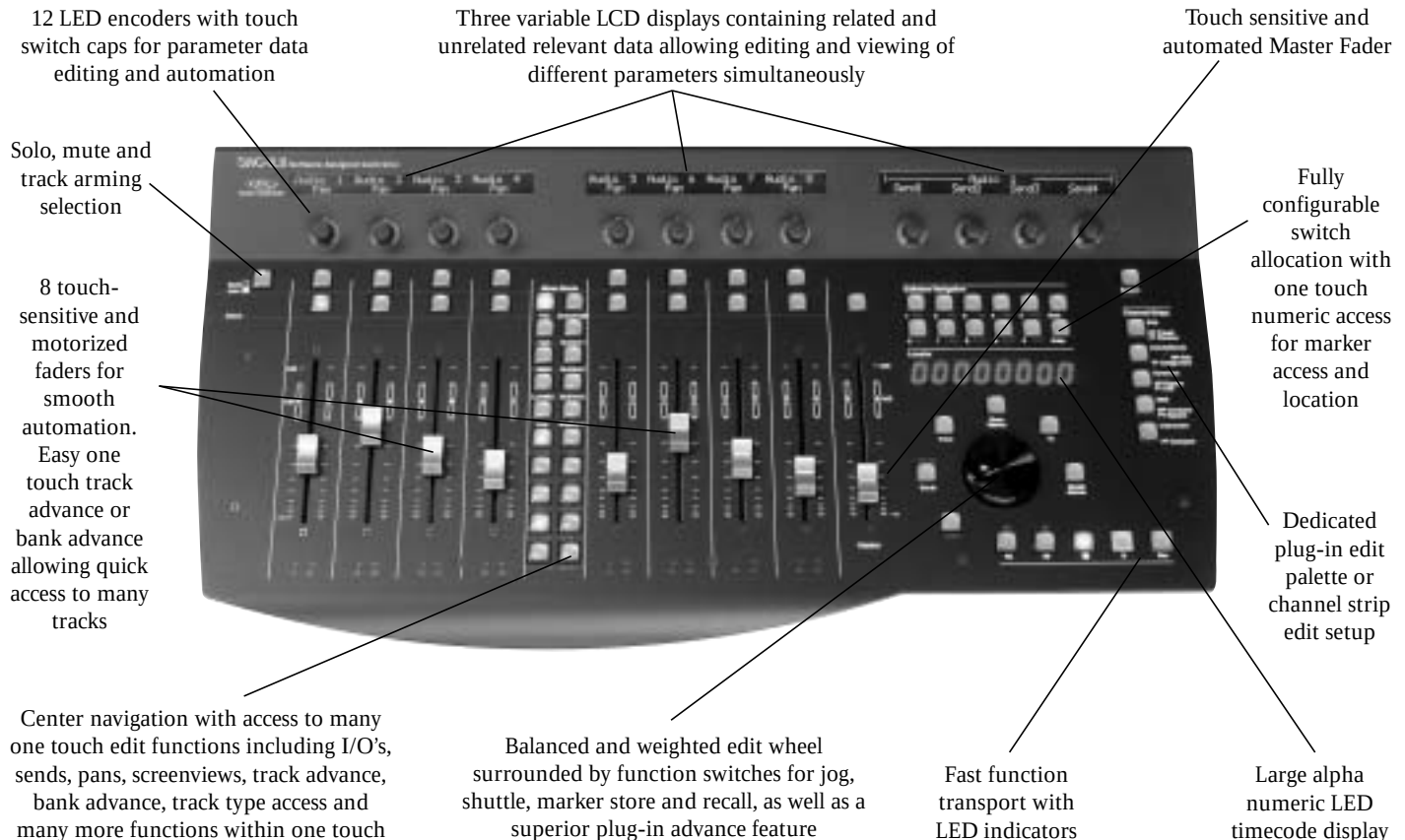
As well as...

- Sek'D Sequoia • Soundscape • Creamware Scope/Pulsar
- Propellers Reason • TC Works Spark • Ableton Live
- Merging Technologies Pyramix • EMU Ensoniq Paris system
- Cakewalk Sonar • Waveframe • Final Cut Pro 2
- Bias • Native Instruments

Virtual Instruments

- PPG Wave • Steinberg Model E • Pro Five/52
- TC Works Mercury One • Emagic EXS-24, ES-1
- Native Instruments B4
- Pulsar DES8i, EZ Synth, Inferno, Miniscope, BlueSynth, Vocoder, U-Know 007, Vectron Zarg Orion,

The goal of the SAC-2.2 is to make your work with both audio and MIDI tracks fast, effortless and far easier than you ever thought possible. Music is all about interaction and organization. The SAC-2.2 organizes every pertinent audio function needed to make a successful mix all within one touch. No searching and no mousing around. Simple, straight forward and designed to let you concentrate on your music as it was meant to be. All tracks are instantly accessible to edited together or singly with enough information in the displays that you will find yourself rarely having to look at the monitor.



FIREStation

8x8 Fire Wire Workstation For Mac and Windows

The FireStation is a 24-bit audio interface that provides eight simultaneous inputs and outputs to your favorite



computer-based recording environment via a high speed FireWire connection. The FireStation utilizes Yamaha's open mLAN audio networking protocol that can support hundreds of channels of bi-directional digital audio, MIDI and word clock on a single FireWire bus. I/O features include two mic/instrument preamps, switchable between solid state or tube operation; eight 1/4" TRS line inputs two outputs; eight channels of ADAT optical I/O; S/PDIF I/O as well as control room and headphone outputs with level controls. Word clock I/O via BNC connectors are provided as well as a MIDI port for connecting synths and control surfaces etc... The FIREstation can also be used as a stand alone 8x2 mixer or A-to-D converter and is expandable to 48 Channels by daisy-chaining multiple units.

Two Dual-Servo Preamps with Switchable Tube Circuit

- ◆ Two Dual-Path Mic / Instrument preamps deliver maximum tonal flexibility with the choice of a solid state or 12AX7 tube enhanced audio path
- ◆ Preamp gain and the amount of signal routed to the vacuum tube are controlled independently with a dual concentric knob – greater levels of tube drive can deliver a desirable warmth or richer sound or distortion at extreme more settings
- ◆ XLR mic and 1/4" Hi-Z instrument are easily accessible from the front panel via Neutrik combo connectors
- ◆ 48 volt phantom power and 20dB pad switches are available for each channel
- ◆ Each preamp channel has it's own 1/4" TRS direct output send that allow an external processor, such as a compressor, to be placed in the signal chain and returned into the FIREstation via line inputs

Inputs and Outputs

- ◆ Eight balanced 1/4" TRS analog inputs and outputs
- ◆ The ADAT optical I/O supports eight channels of 24-bit audio, up to 48kHz to be transferred simultaneously in one direction
- ◆ Coaxial S/PDIF I/O

8x2 Line Mixer

- ◆ Each channel can be easily routed to the main outputs of the onboard line mixer. This provides zero-latency monitoring when used with a computer based DAW
- ◆ The mixer can be used whether connected to a computer or not
- ◆ The output level for the headphone and master outputs is controlled by a dual concentric volume knob

Dual mLAN/Fire Wire Interface

- ◆ The FIREstation can be networked to your computer and other digital devices via two standard IEEE-1394 FireWire interfaces that utilizes Yamaha's advanced mLAN network protocol
- ◆ mLAN (Music Local Area Network) an open platform that allows digital audio, MIDI and Word Clock information to be sent to and from multiple digital devices including multiple FIREstations, digital mixers and keyboards such as the Yamaha Motif or Korg Triton Studio

Compatibility

- ◆ The FIREstation works with any computer based audio system (Mac or PC) using ASIO drivers

MIDI I/O

- ◆ The onboard MIDI I/O port can be used for interfacing a keyboard or fader control surface for sequencing and mixing within your computer based DAW
- ◆ MMC (MIDI Machine Control) and MTC (MIDI Time Control) are also supported

Synchronization

- ◆ BNC Word Clock I/O allows the FIREstation to be configured as the slave or master device in a digital system
- ◆ The ADAT I/O can also provide or carry Word Clock as well.
- ◆ A 1/4" footswitch input, on the rear, allows you punch in/out recording

Specifications

Preamp Bandwidth	10Hz to 50kHz
Preamp Gain	70dB
A-to-D D-to-A Converters	24-bit
Supported Sample Rates	44.1kHz or 48kHz
A-to-D Dynamic Range	107db
D-to-A Dynamic Range	107db
Internal Word Clock Jitter	Ultra-Low
mLan Speed	200mbps
Internal Power Supply	

The IEEE-1394 FireWire standard offers the possibility of hundreds of channels of digital audio and midi on one network, easy connection of additional interfaces between products, master clock control bus without the need for word clock distribution



10-Channel Digital Line Mixer

The M-1000 is a 1U rack-mount mixer designed to mix digital signals of varying sample rates. The M-1000 comes with four stereo S/PDIF digital inputs and a stereo analog input—all with 24-bit/96kHz sound quality—making it perfect

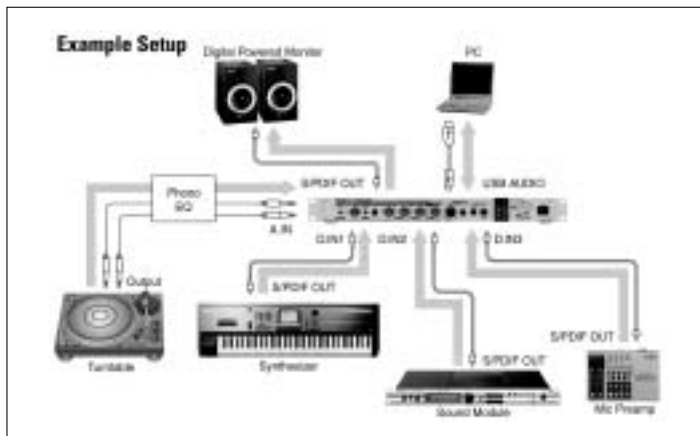
for mixing electronic musical instruments and recording gear equipped with digital outputs. The M-1000 can even mix audio from a PC via its USB port. Word Clock is also provided, and multiple units can be linked for greater mixing power.

FEATURES

Mix Multiple Digital Sources

Today's synthesizers, sound modules and recording gear often feature digital outputs, but musicians have never had a way to mix all these sources at once. That's where the M-1000 comes in. This 1U rackmount mixer can mix up to four stereo digital signals of varying sample rates—along with a stereo analog input and digital audio from a PC—with professional 24-bit/96kHz sound quality.

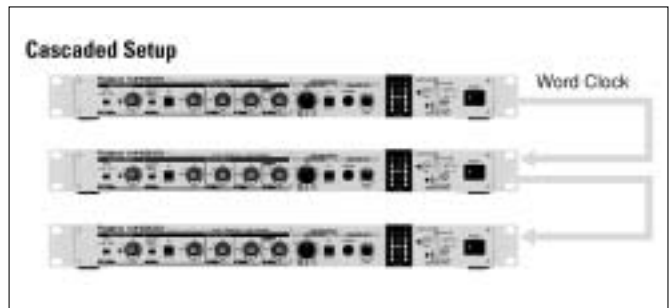
Take a look at the back panel, and you'll find four S/PDIF digital inputs and a stereo analog input with high-quality A/D converters. That's a total of 10 input channels that can be mixed—regardless of sample rate—using the front-panel knobs. The result can be output via coaxial and optical digital outputs or the M-1000's analog Master and Monitor outputs.



USB Port for PC-Based Recording

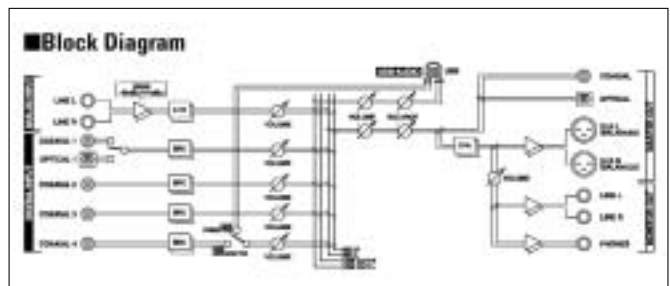
The M-1000 even lets you integrate your USB-equipped PC into the mix. Using a USB cable, you can route digital signals from a computer into the M-1000, where they can be mixed with other input channels. The results can then be sent back out to the computer for recording. The M-1000 supports sample rates up to 96kHz—even via USB*—so there's never been a better or easier solution for computer-based recording.

Flexible Sync Options and Expandable Design



With its Word Clock input and output, the M-1000 can be easily integrated into professional studios. The clock source itself is selectable among Internal, Word Clock, Digital In and USB* for maximum flexibility. And with its pro-quality specs—including pristine 24-bit/96kHz AD/DA converters and 56-bit internal processing—the M-1000 can be used in a range of applications from home studio setups to world-class recording and editing suites. Best of all, multiple M-1000s can be cascaded for situations when additional inputs are required.

* At 96kHz, it is not possible to send audio in and out simultaneously via USB.



ROLAND

SI-24 STUDIO PACKAGE

COMPUTER HARDWARE

852

Studio Package Pro

The Studio Package Pro is a complete hardware and software bundle that gives musicians everything they need to professionally record music on a computer. The Studio Package Pro consists of three elements:

The SI-24 Studio Interface, RPC-1 PCI Interface Card, and Emagic's Logic RPC Pro software for Mac or PC. This affordable combination provides 24-bit/96kHz recording and professional MIDI sequencing with a motorized control surface—a powerful combination at an incredible value.

The SI-24 Studio Interface is a mixing surface equipped with eight XLR/TRS inputs, a Guitar Hi-Z input, plus digital I/O in S/PDIF and R-BUS formats—all with 24-bit/96kHz sound quality. The SI-24's 13 motorized faders, 12 rotary knobs and 5.1 surround joystick can all be used to control Logic's mixing functions and plug-ins. There's even a Screen Set function for changing Logic's screen sets remotely.

Audio is passed from the SI-24 to and from the computer via the included RPC-1 R-BUS Interface Card, a PCI audio card with drivers for Windows, Macintosh and ASIO 2. The SI-24 connects to the RPC-1 via a single R-BUS cable, which can handle eight channels of bi-directional 24-bit/96kHz digital audio, along with MIDI information received from the SI-24's MIDI In and Out ports—making the SI-24 a useful MIDI interface as well.

All recording is handled in the computer via the bundled Logic RPC Pro software. This special version of Emagic's award-winning music production software for Mac or PC provides eight channels of simultaneous 24-bit/96kHz recording, 24 tracks of playback, 5.1 surround mixing, level and pan automation, a host of killer plug-ins and more. And since the SI-24 is designed to control many of Logic's mixing functions—including track level and panning, EQ, plug-in parameters and soft synths—users gain hands-on control of their software for an unbeatable combination. The SI-24 also includes controller templates for popular software such as Pro Tools and Cubase, plus a "Learn" mode for setting up user presets more easily.



FEATURES

Professional Sound Quality

As with any digital recording system, sound quality is a primary concern. That's why Roland gave the SI-24 Studio Interface the best 24-bit/96kHz converters. You can use up to eight analog inputs simultaneously, choosing from either 1/4" phone jacks or XLR connectors. Six analog outputs are also provided, plus S/PDIF digital I/O. Once audio is routed into the SI-24, it is transferred digitally in and out of the computer via R-BUS. And since Logic supports 24-bit/96kHz recording, the sound quality is never compromised. You can even dither back down to 16-bits when you're ready to burn a CD.

Fully Automated Mixing

With 13 motorized faders, mixing on the SI-24 couldn't be easier. Simply switch fader banks to access more channels and watch as the faders instantly snap to the proper positions! Naturally, the SI-24's faders can also be used to control Logic's "virtual" faders for more natural mixing. And when you really want to create complex mixes, tap into Logic's wealth of automation functions. Tools like HyperDraw let you draw in fader moves and panning, while the new track-based automation makes it even easier to automate any mixing or plug-in parameter without leaving the Arrange window.

Transport/Function Buttons

Besides functioning as a mixer, the SI-24 works as a remote control for Logic. Dedicated transport buttons and a large Jog wheel make moving around your song easy, while ten numeric keys perform multiple functions: Push the Screen Set button and they automatically select Logic's screen sets, making it easy to switch between the Arrange window, Mixer window or other screens. Press the Short Cut button and the numeric keys automatically perform functions like Save, Undo, Copy, Paste and Cycle. They can even call up automation views for volume and pan. And that's just the beginning!



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ROLAND

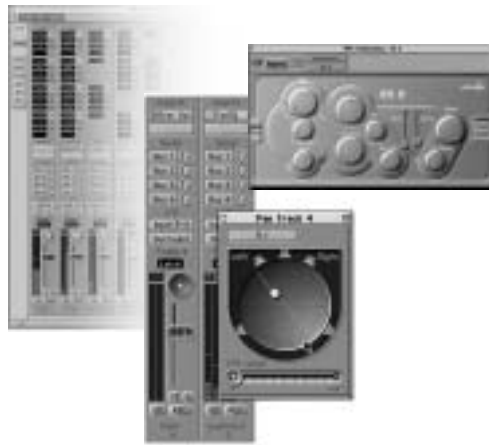
SI-24 STUDIO PACKAGE

COMPUTER HARDWARE

853

Easy Editing with Real Faders and Knobs

Logic's mixer makes it easy to see levels, panning and effects—but who wants to mix with a mouse? Instead, try using the SI-24's faders, buttons and knobs for a more “hands on” approach. To adjust a track's level, for example, just grab one of the motorized faders and watch it change onscreen. And when you want to pan a track, simply select the desired channel and twist one of the Pan knobs. Similarly, you can use the SI-24's multi-function buttons and knobs to set EQ and send levels. There's even a dedicated Surround joystick so you can maximize the 5.1 surround capabilities of Logic RPC Pro.



RPC-1

R-BUS Interface Card

The RPC-1 is a cross-platform PCI audio card that serves as the gateway to your computer. Since all the A-D conversion is handled by the SI-24, the RPC-1 busses audio in and out of the computer using the R-BUS port. R-BUS is a multi-channel audio format that permits the simultaneous exchange of eight channels of 24-bit/96kHz digital audio, along with MIDI control information. The supplied R-BUS cable is all it takes to use the SI-24 with Logic RPC Pro.

Logic RPC Pro

Based on Emagic Logic 5 Technology

Logic RPC Pro is a powerful sequencing and audio program based on Logic 5 technology—praised by professional musicians and producers the world over. You get high-resolution MIDI sequencing and 24 tracks of up to 24-bit/96kHz recording. Editing is ultra-intuitive using Logic's graphic editors and specialized tools. You also get access to award-winning Emagic plug-ins including effects and soft synths. This is serious software for serious producers.

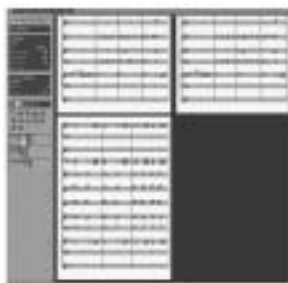


Intuitive Recording and Editing

Whether recording MIDI or audio, Logic RPC Pro makes it easy. The Arrange window is where all the action is, allowing you to build complex arrangements with simple and powerful tools. Detailed MIDI editing can be done in the Matrix (piano roll), List, and Score Editors, while audio can be non-destructively edited in the Sample Editor. In addition to all the standard audio editing functions, Logic RPC Pro also makes pitch and tempo editing available.

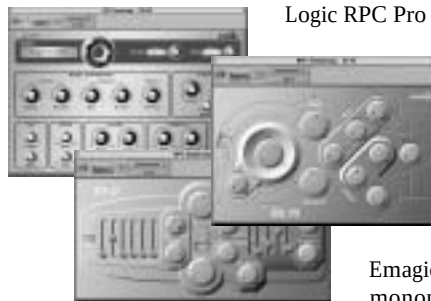


Professional MIDI Scoring



Using Logic's Score Editor, you can create professional score printouts quickly and easily. Simply record a MIDI performance and Logic RPC Pro will convert the data into clear and legible sheet music. Notation can then be edited onscreen with or without changing the original MIDI data. Logic also provides helpful tools to make your notation clearer, such as selectable note colors and instrument sets for separating individual parts from a score.

A World of Emagic and VST Plug-Ins



Logic RPC Pro comes with over 20 high-quality Emagic plug-ins. These include insert effects like dynamics and EQ, plus studio essentials including reverb, chorus and tape delay. Logic RPC Pro even comes with three

Emagic soft synths: the ES M for monophonic synth sounds, the ES P for polyphonic sounds, and the

ES E for ensemble sounds. Additional instruments like the EXS24 Sampler and EVP88 Piano can be purchased separately. And since Logic is VST-compatible, you can add optional VST plug-ins at any time for even more mixing power.

ROLAND / TASCAM

MMP-2

COMPUTER HARDWARE

854



Mic Modeling Preamp

The Roland MMP-2 is a unique two-channel mic preamp with COSM Mic Modeling, four bands of fully parametric EQ, modeled tube compression, an enhancer and de-esser—plus ultra-intuitive control software for Mac or PC, superb-quality analog circuits, and 24-bit/96kHz A/D conversion. You can even download new effect plug-ins via USB, making the MMP-2 an indispensable tool for recording microphones and acoustic instruments. Uses the same carefully selected analog circuits and components as the mic preamps used in Roland's VS-2480.

COSM Mic Modeling and DSP Effects

- ◆ COSM technology models the sound of vintage and high-end studio microphones
- ◆ Four bands of fully parametric EQ
- ◆ Modeled tube compression, enhancer and de-esser effects are also provided

Built-In USB Port

- ◆ Connect to a Mac or PC and use the bundled control software to draw EQ curves or set compressors using a graphic interface
- ◆ Download effects such as noise suppressor, hum canceller, feedback eliminator and modeled tape saturation

Inputs and Outputs

- ◆ Analog I/O includes two balanced XLR / 1/4" TRS combo mic inputs with phantom power and two XLR line outputs
- ◆ Coaxial digital input, plus coaxial S/PDIF and AES/EBU (XLR) digital outputs

4-band Fully Parametric EQ

- ◆ Low, Low-mid, Hi-mid and High EQ bands
- ◆ Filter types – Peaking, Low-Shelving, High-Shelving, Low-pass, Highpass, Low-pass2, Hi-pass2, Band-pass and Band-Eliminate
- ◆ Sweepable 20Hz to 20kHz frequency range with a ± 15 dB Boost/Cut and a variable Q of 0.36 to 16

Dynamics

- ◆ Three compression models to choose from: Solid, Tube1, Tube2. Each with variable Threshold (-24 to 0dB), Ratio (1:1 to ∞ :1), Attack (0 to 800ms) and Release times (0 to 8000ms) as well as switchable Knee curves (soft/hard) and Level control (± 24 dB)
- ◆ AutoGain function automatically makes up for any level lost during compression
- ◆ Expander has a variable threshold (-80 to 0dBu), Ratio (1:1 to ∞ :1 as well as Attack (0 to 800ms) and Release times (0 to 8000ms)
- ◆ Enhancer/De-esser has variable Sensitivity (0-100) and Frequency (1kHz to 10kHz)
- ◆ Adjustable enhancer mix level (-24 to +12dB)

TASCAM US-122

USB Audio/MIDI Interface

Combining affordability and ease-of-use with powerful capabilities and built-in compatibility with your computer, the US-122 is an excellent solution for several levels of computer recordists. With its compact, ergonomic design and rugged steel chassis, the US-122 meets the needs of everyone from hobbyist musicians through advanced professional recording engineers and producers. And it is bundled with Tascam's GigaStudio 24 sampling workstation software and a special version of Steinberg's Cubase recording/sequencing software, so you can begin creating and recording new music right out of the box.



- ◆ Two XLR-based, phantom-powered mic inputs with analog inserts that allow hardware devices (compressors, etc.) to be placed into the recording signal chain.
- ◆ Two line-level inputs on balanced 1/4" TRS jacks are switchable to guitar-level for direct instrument recording.
- ◆ Adjustable zero-latency direct monitoring provides a sonically pure reference point before entering DAW processing.
- ◆ Two line-level outputs as well as headphone output with level control
- ◆ 16 channels of MIDI I/O for use with synthesizers and other MIDI equipment.
- ◆ Self-powered via USB making it perfect for location recording based around laptop computers as well as studio recording
- ◆ Mac and Windows compatible, ASIO, WDM, GSIF and Apple Core Audio (OS X) drivers turn any USB-equipped computer into a powerful audio recording system.



EQUIPMENT LEASING AVAILABLE

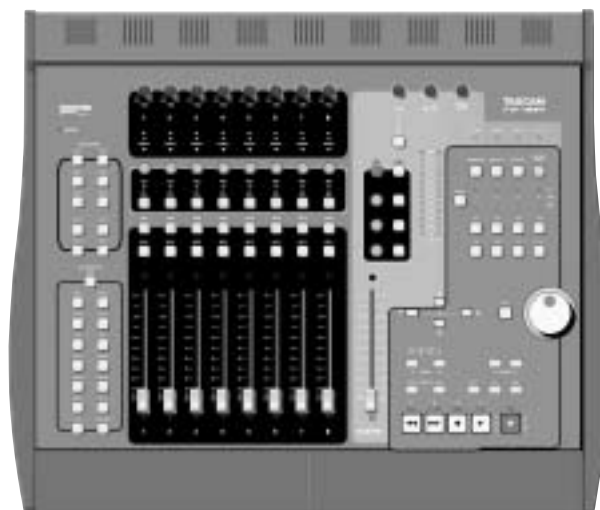
Professional Control Surface/ Firewire Audio-MIDI Interface

A professional DAW control surface and audio/MIDI interface equipped with high-bandwidth IEEE1394 (Firewire) capability, the FW-1884 provides audio and MIDI interfacing to computers as well as control of DAW parameters via eight 100mm motorized touch-sensitive channel faders, one master fader, and controls for pan, solo, mute and select functions on each channel. Tactile control for four bands of parametric EQ, a weighted jog wheel and a variety of shortcut keys for various popular software applications are also included.

The FW-1884s DAW control capabilities include comprehensive mixing, automation, editing and navigation tools. In addition to its surface control capabilities, the FW-1884 provides eight balanced XLR analog mic/line inputs with high quality mic preamps, phantom power and inserts on every channel. Using 24-bit/96kHz A/D and D/A converters, the FW-1884 offers full 96kHz operation on all analog I/O channels with compatible DAW software. In addition to its two IEEE1394 computer interfaces, the FW-1884 features eight channels of ADAT lightpipe as well as stereo S/PDIF inputs and outputs. Perfectly suited to multi-channel surround production as well as standard stereo mixing, the FW-1884 provides eight analog outputs for simultaneous connection to L/R and 5.1 surround matrices. A headphone output is also provided.

Four MIDI inputs and four MIDI outputs on the FW-1884 allow connection to a wide variety of MIDI sound generation and timing tools. Word Clock I/O allow computer systems to maintain accurate clock synchronization in digital recording environments. Also, its assignable footswitch jack can be used for tasks such as hands-free punching or MIDI control. In use, the FW-1884 allows up to 18 audio inputs to be accessed at once. As a DAW controller, the FW-1884 is compatible with a wide variety of popular applications including Digital Performer, Cubase, Nuendo, Sonar, and more.

For people who require simultaneous control of more audio channels, the optional FE-8 (eight-channel sidecar) expands the FW-1884 with eight additional channel control strips.



FEATURES

- ◆ Comprehensive mixing, automation, editing and navigation tools for DAWs
- ◆ Eight balanced XLR analog mic/line inputs with high quality mic preamps
- ◆ Phantom power and inserts on every channel
- ◆ 24-bit/96kHz A/D and D/A converters; full 96kHz operation on all analog I/O channels with compatible DAW software
- ◆ Eight channels of ADAT lightpipe, stereo S/PDIF inputs and outputs.
- ◆ Eight analog outputs, allowing connection of L/R and 5.1 surround matrices
- ◆ Eight 100mm motorized touch-sensitive channel faders, one master fader
- ◆ Dedicated controls for pan, solo, mute and select functions on each channel; tactile control for four bands of parametric EQ
- ◆ Shortcut keys for various popular audio software applications
- ◆ Dedicated headphone output
- ◆ Four MIDI inputs, four MIDI outputs
- ◆ Word Clock in and out jacks
- ◆ Assignable footswitch jack
- ◆ Up to 18 simultaneous inputs
- ◆ Compatible with a wide variety of popular DAW applications
- ◆ Optional FE-8 expands the FW-1884 with eight additional channel control strips (100mm motorized faders and dedicated control buttons). Multiple FE-8's may be added as needed for big console functionality with any DAW system.

TASCAM

US-428

COMPUTER HARDWARE

856

Digital Audio Workstation Controller/USB Interface



The US-428 is a 24-bit digital audio workstation controller with the familiar interface of Tascam's Portastudio that professionals have come to recognize over the years. Essentially combining a hardware interface with computer functionality, the plug-and-play US-428 interfaces with Windows and Mac-based sequencing platforms via USB without any additional cards to be installed.

The US-428 offers full control over any number of software faders through eight hardware faders, groups of eight software faders selectable with buttons located beneath the unit's jog wheel. The control surface also supports transport, EQ and control functions for sequencers and DAWs. The US-428 supports inputs of 16- or 24-bit resolution at 44.1 or 48 kHz, and stereo or mono, with four analog inputs and a S/PDIF digital input. Two audio output channels also support 16- or 24-bit resolution in stereo or mono, and at 44.1 or 48 kHz. The US-428 also comes bundled with a custom version of Steinberg's Cubase VST recording/MIDI sequencing software.

FEATURES

Input Section

- ◆ There are four analog inputs and a stereo S/PDIF input, any four of which can be combined to record up to four simultaneous tracks via USB
- ◆ There are four Trim knobs with individual signal present and overload LEDs (one for each analog input) that ensure setting proper input levels before recording.

Channel Section

- ◆ Eight Channel Faders send continuous controller information to the current bank of eight faders delegated by the Bank select buttons. Each of the eight channels has its own Mute/Solo, record-ready and channel select switches with status LEDs.
- ◆ Master Fader controls the level going to the stereo bus output, and/or sends MIDI controller information to the host software.

The Master Section

- ◆ Dedicated Transport and Locate controls provide one-button access to the corresponding on-screen transport controls of your host application.
- ◆ Four Aux Send buttons with status LEDs access the corresponding Aux Send in your software and are controlled using the Datawheel
- ◆ The Datawheel also acts as a continuous controller for a variety of functions such as a shuttle wheel, moving the transport in the direction the wheel is turned.
- ◆ Dedicated EQ module controls the currently selected channel of your audio recording program and has continuous controllers for level, frequency and Q as well as selector buttons that access the four available EQ bands (High, Hi-Mid, Lo-Mid and Low)
- ◆ The Pan control allows left/right panning of the currently selected track
- ◆ The left and right Bank Select keys give you unlimited access to successive banks of eight faders that control the corresponding channels in the software's internal mixer
- ◆ When changing to a different bank of faders, the Fader Null switch allows you to move the corresponding channel fader, using the Rec and Sel LED's as up/down guides until the US-428's fader matches the fader in the software's internal mixer.
- ◆ The Input Monitor switch allows you the Fader and Mute switches for channel's 1-4 to control the level of four analog inputs A,B,C and D to the US-428's stereo outputs. This is useful for monitoring the analog inputs with zero latency while recording.

- ◆ Two balanced XLR Mic/1/4" TRS line inputs
- ◆ Two unbalanced 1/4" inputs switchable from Mic/Line to HiZ for direct connection of a guitar or bass
- ◆ Coaxial S/PDIF digital I/O, US-428 to USB interface
- ◆ 1/4" headphone output, stereo analog monitor outputs (RCA)
- ◆ Two independent 16 channel MIDI inputs and output



Rear Panel Connectors



For Any Inquiries Regarding Your Order, Call Our Customer Service:
(800) 221-5743 • (212) 239-7765 • FAX: (800) 947-2215 • (212) 239-7549

US-428 Compatibility Reference

- ◆ Variable ASIO buffer size latency control
- ◆ ASIO 2.0 Direct Monitor ultra-low latency (1.5ms) monitoring with effects
- ◆ Sound Manager driver support (Mac) allows use as main sound controller for multimedia, video editing and games, or any editing program that rely on Sound Manager support including Pro Tools Free.
- ◆ Provides complete control of Native Instruments' B4 virtual organ software
- ◆ Emulates Pro Tools CS-10 control protocol, allowing use as a control surface for any Pro Tools software (TDM and LE) and Pro Tools Free
- ◆ Cubase VST 5.0 or higher (Mac/Windows)
- ◆ Nuendo 1.5 - Mac/Windows
- ◆ eMagic Logic Audio 4.7 or higher
- ◆ Cakewalk Pro Audio 9.xx and Sonar1.xx
- ◆ Digital Performer v2.7 or higher - Mac
- ◆ Sonic Foundry Vegas, ACID and Sound Forge
- ◆ Syntrillium Cool Edit Pro
- ◆ Minnetonka MXTracks - Windows
- ◆ BIAS Deck and Peak
- ◆ Tascam GigaStudio
- ◆ Propellerheads Reason
- ◆ Most VSTi instruments

US-224

Digital Audio Workstation Controller/USB Interface



Combining a hardware interface with computer functionality, the US-224 is a simplified version of the US-428 DAW controller and interfaces via USB. There are no additional interface cards to install, and it is compatible with applications that accept standard MIDI controller messages. Portable and incredibly affordable, the US-224 connects to your laptop for a complete studio you can take anywhere.

The US-224's cool purple control surface gives you more than just mouseclicks for your DAW software. Like the US-428, the US-224 gives you real tactical controls like faders, transports,

mutes and solos, panning and more. Plug in a guitar, mic or keyboard and get

two channels of audio I/O in 16 or 24 bit quality, as well as 16 channels of MIDI I/O. The

US-224 comes with a custom version of Steinberg's Cubase VST for Windows and Mac. With eight channels of audio and 16 MIDI tracks, the US-224 is a perfect all-in-one setup for anyone getting into the world of computer audio recording.

- ◆ The input section comprises a 24-bit audio (44.1 or 48 kHz) interface, capable of streaming two simultaneous tracks of audio into your computer.
- ◆ Inputs include two balanced XLR mic, two 1/4" unbalanced line (switchable to high-impedance for direct input of a guitar, bass or other hi-Z source), and S/PDIF digital.
- ◆ Outputs include a pair of unbalanced line (RCA), S/PDIF and headphone
- ◆ Also has MIDI input and output ports, allowing you to send and receive data and MIDI Time Code (MTC) from your MIDI-based keyboards and other devices.
- ◆ The US-224 is powered via its USB connection to the computer with no external power supply required.
- ◆ The US-224's control surface includes a variety of controls which make working with audio software faster and easier. The US-224 allows control over any number of software faders via four hardware faders selectable in banks with buttons located beneath the US-224's jog wheel. Control surface also supports transport and control functions for sequencers and DAWs.
- The channel section of the control surface consists of four channel faders (plus one master fader), four MUTE/SOLO buttons, a switch to toggle Solo and Mute functions, and individual record-ready and select switches.
- The master section features a DATA wheel, PAN control (assigned by pressing the channel SElect key) and dedicated transport and locate controls, offering one-button access to these often-used functions.
- ◆ The US-224 can also run in US-428 emulation mode offering users the ability to use software already supporting the US-428.

PHASE 26 USB

2-in/6-out USB Interface

The PHASE 26 USB is an external studio interface featuring TerraTec's tried-and-true audio technology in 24-bit, 96kHz resolution. This makes it the perfect mobile recording solution for all USB-equipped Windows notebooks or Apple PowerBooks. Featuring two analog inputs and six outputs, a MIDI interface, a microphone input, and an amplified headphones output, the PHASE 26 USB is a remarkably versatile audio system for musicians and producers. And with the popular and proven TerraTec Phono Preamplifier—designed to accept turntables with no further amplification required—it is also the first choice for DJs.



- ◆ Be it music productions, recording sessions, 5.1 surround productions, digital mastering, or DJing, the PHASE 26 USB offers peak performance and maximum mobility for all audio applications.
- ◆ An optical and a coaxial digital S/PDIF port, high-quality converters with resolutions ranging up to 24-bit/96kHz, and a dynamic range exceeding 106 dB ensure professional audio quality for mobile laptops and fixed desktop studios.
- ◆ Operates with or without power unit. It can also be switched on and off on the fly while the system is running. The computer detects the USB automatically, and its advanced software runs smoothly and flawlessly.
- ◆ Latency is extremely low, courtesy of generic drivers for Windows XP and Mac OS X. And that makes PHASE 26 USB an excellent choice for systems with real-time-enabled software synthesizers.
- ◆ Six (5.1) analog surround outputs
- ◆ Stereo input for line/studio devices
- ◆ Stereo input with preamp for turntables
- ◆ Mic input with Peak LED and Gain knob
- ◆ Headphones input with volume control
- ◆ S/PDIF optical and coaxial in/out
- ◆ 1x1 MIDI I/O
- ◆ Multi-platform (MAC + PC)
- ◆ Low-latency ASIO support



DMX 6FIRE 24/96 6-Channel Card for Music Recording, DVD, Games

Demanding users will experience an awesome sound experience, when using the DMX 6Fire24/96 Sound System:

6-channel audio reproduction in excellent 24-bit quality, advanced connection options on the computer's front side and full compatibility to audio standards of games, DVD entertainment and music. Uses only the best in sound technology: 24Bit/96kHz transducer

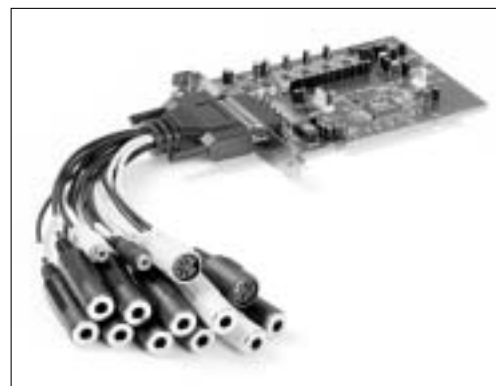
components for all inputs and outputs guarantee a straight frequency response and a signal-to-noise ratio beyond-100db!

- ◆ Combines an EWX 24/96, Phono Preamplifier, MIDI, and an impressive microphone preamp in a single audio solution. Makes this audio interface the desire of any serious recording musician or hobbyist.
- ◆ For easy connections, the supplied 5-1/4" front module I/O offers stereo inputs and outputs for analog and digital devices (optical and coaxial supporting 96kHz, AC3, and DTS) as well as MIDI instruments, headphone and microphone.
- ◆ Allows direct connection of tape deck and record player, while the supplied power pack of phono amplifier and professional software enable you to polish your oldest records with the finest digital sound!
- ◆ Gamers will be amazed when seeing the range of compatibility: Fast DirectSound, EAX, A3D, Sensaura 3D or MacroFX are just a few of the standards supported.
- ◆ Award-winning EWS technology with ASIO 2.0 and WDM drivers (2ms latency)
- ◆ Headphone output with volume level
- ◆ 16 channels of MIDI I/O
- ◆ Seamless connectivity with DVD players, AC3- and DTS reproduction via the digital interface, as well as full support of current Windows operating systems from 98SE to XP with WDM drivers
- ◆ Includes various applications from DVD player to audio editors and virtual sound studio— everything you can dream of.

PHASE 28

2-in/8-out 192-kHz Multi I/O Recording Interface

Offering a variety of ports, proven TerraTec technology, and transcendent audio performance on all Mac and PC systems, the PHASE 28 packs a powerful one/two punch - sophisticated studio features at a remarkably affordable price. PHASE 28 features two balanced 1/4" analog inputs and eight balanced analog outputs, MIDI interface, and S/PDIF digital (coaxial) I/O designed for a variety of uses, on a specially shielded break-put cable. Inputs accept studio levels and signal resolution up to 24-bit/192 kHz. This, plus select converters and cleverly designed circuitry enable recordists to make crystal-clear stereo recordings and playback high-resolution 5.1 and 7.1 surround productions. Gain knobs serve to adjust input sensitivity individually to match analog signal sources. Two signal LEDs make it easy to dial in suitable levels for the premium quality preamp.



- ◆ 2 balanced analog 1/4" inputs
- ◆ 8 balanced analog 1/4" outputs
- ◆ 192kHz/24-bit resolution
- ◆ 1x1 MIDI interface for 16 channels
- ◆ Gain knobs and signal LEDs for all input channels

- ◆ Coaxial digital ports accept S/PDIF, AC3, and DTS data streams with all standard sampling rates up to 32-bits. What's more, the output is designed to handle sampling frequencies up to 192 kHz.

- ◆ Driver architecture ensures lowest latency ASIO support, top performance, and flawless compatibility with the audio platform of your choice. ASIO 2.0, GSIF, MME, WDM, Mac OS 9/X, or Windows XP, the PHASE 28's software integrates seamlessly into all prevalent systems and programs.

MIDI MASTER USB Programmable USB-MIDI Keyboard



Making music on a PC or MAC is easier than ever before with MIDI MASTER USB—simply connect the keyboard with only one cable, turn it on and ...hit it!

MIDI MASTER USB features an extremely easy-to-play, touch-sensitive 49-key keyboard with pitch and modulation wheel, bright LED display, and ergonomically-placed control sliders and function keys. Additional features include MIDI controller commands freely assigned to controls, adjustable

curves for touch sensitivity, MIDI reset and octave switches as well as numeric 10-key keypad.

Via USB, MIDI MASTER is directly available as input device, or as independent MIDI interface for connecting additional devices and accessed by every music software. And of course it can also be used without a computer as a pure MIDI keyboard. Last but not least, voltage supply can be selected from a power supply or USB, thereby saving an additional cable under your desk!

- ◆ 49 touch-sensitive keys with variable velocity
- ◆ Pitch-bend wheel and modulation wheel (controller assignable)
- ◆ Data entry slider (horizontal, MIDI controller assignable)
- ◆ USB MIDI-out interface
- ◆ 3 x 7 segment LED display
- ◆ Connector for optional sustain pedal
- ◆ 10 non-volatile memories
- ◆ 13 selectable velocity curves
- ◆ Integrated demo songs
- ◆ Powered via or optional 9v DC external power supply (9 V DC)
- ◆ Transpose function (transposing)
- ◆ Octave up/down button
- ◆ +/- keys
- ◆ 6 function keys
- ◆ 10 numeric keys
- ◆ USB MIDI driver for Windows 98, SE, ME, 2000 and XP and Mac OS 9 with OMS
- ◆ Includes 2 meter USB cable

TERRATEC

MIC2 & MIC8 SYSTEMS

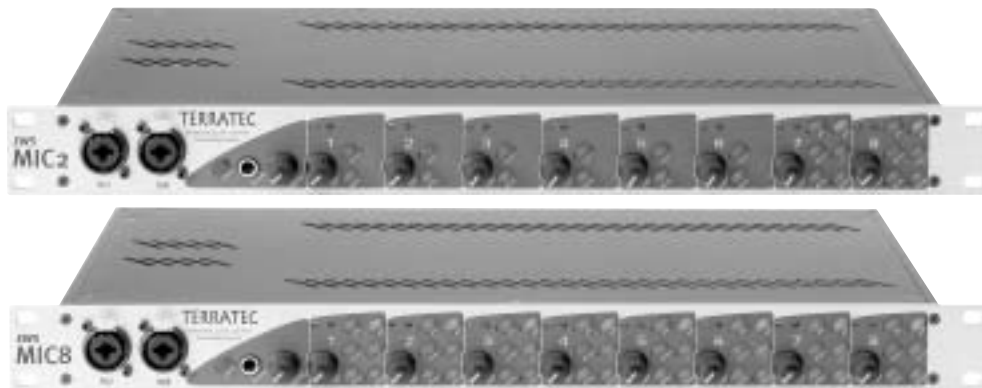
COMPUTER HARDWARE

860

8-Channel 24-bit /96kHz Digital Audio Interfaces

Incorporating state-of-the-art, versatile technology and built-in premium SPL quality microphone inputs, the MIC2 and MIC8 are advanced and powerful digital audio interface solutions for a host of professional studio applications. At the heart of the systems are the two (MIC2) and eight (MIC8) preamps developed in cooperation with SPL.

All eight inputs on both devices can also accept line signals. The front panel offers two audio channels equipped with and XLR and 1/4" combo inputs. The many signal routing options enable recordists to configure their studio setups flexibly for the most diverse recording sessions without having to re-connect signal-carrying cords.



FEATURES

- ◆ 24-bit/96 kHz A/D and D/A converters
- ◆ Flexible control center for any studio. Besides analog I/O, the 19" (1RU high) housing also has ADAT and S/PDIF interface, connectors for MIDI and WordClock signals, and headphone output with levels.
- ◆ Two front-panel XLR balanced switchable mic and line/instrument inputs with 48v phantom power
- ◆ Eight analog inputs/outputs via switchable XLR and 1/4" jacks with +4/-10 dB settings
- ◆ Balanced I/O guarantee a low-noise signal management, allowing use as stand-alone preamps or audio mixers. All input channels can be adjusted at the rack module, and can be muted or directly forwarded to an output.
- ◆ 2 or 8 high quality mic preamps developed in cooperation with SPL of Germany
- ◆ 8 gain controls on front side for analog inputs (20 dB range)
- ◆ 8 input signal and clip LEDs on front side
- ◆ Direct out setting for all analog channels on front side (monitoring)
- ◆ Phase, low-cut and mute settings for each channel
- ◆ Integrated ADAT interface
- ◆ Toslink interface for ADAT or S/PDIF
- ◆ Up to 8 ADAT channels and audio channels can be mixed
- ◆ WordClock I/O
- ◆ High quality headphone DAC and amplifier for monitoring the mixed signal
- ◆ Internal power supply for 110/230v, 50Hz/60Hz operation
- ◆ The systems' open modular interfaces can connect to your computer via optional FireWire, mLAN or TerraTec's EWS88 32-bit PCI card (see box).
- ◆ Bundled, easy to use control software offers extensive routing and signal conversion possibilities. With a click of the mouse, analog, S/PDIF and even ADAT signals can be "wired" almost freely by the hardware and converted among each other.
- ◆ Sophisticated WDM driver for Windows 98SE, ME/2000 and XP, ASIO 2.0 and GSIF ensure smooth operation.

MIC2+ & MIC8+ SYSTEMS

The Mic 2 + and Mic 8+ "Plus" versions add the EWS88 PCI card with a 4-meter



cable to offer a professional, all-in-one computer interface/preamp/converter system. Otherwise, exactly identical to the Mic 2 and Mic 8, the "Plus" versions adds simultaneous recording and playback of all channels with up to 24-bit/96kHz, hardware mixer with internal 36-bit

resolution, EWS-Connect, 2 MIDI ports, and a VU-meter in the control panel.

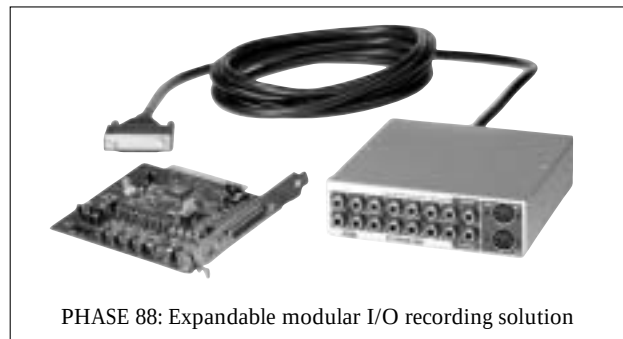


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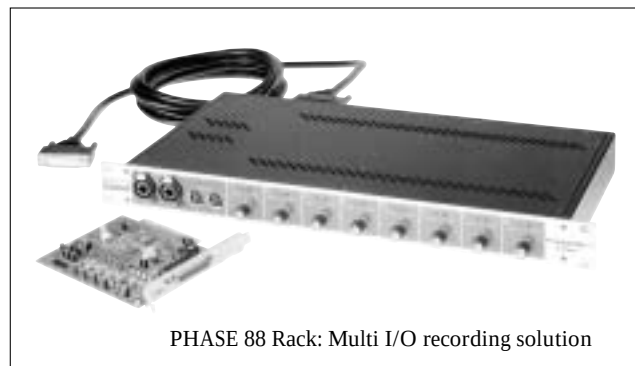
PHASE 88 / PHASE 88 RACK

Modular I/O and Multi I/O Recording Solutions

The PHASE 88 is a professional audio and MIDI interface that transforms any Mac or PC into a professional recording system. Eight high-quality analog input and output converters process audio signals (from start to finish and from hardware to software) with up to 24-bit/96kHz resolution. The PHASE 88's converters are housed in a 5¼" module that can be installed in or placed outside the computer. An additional S/PDIF (coaxial) digital input/output on the PCI bus card provides the perfect interface to the digital studio environment.



PHASE 88: Expandable modular I/O recording solution



PHASE 88 Rack: Multi I/O recording solution

PHASE 88 RACK offers all the ports required for a music production system. The modular system can be extended to 40 physical inputs and outputs. Based on the PHASE 88 recording interface, the rack version offers eight analog inputs and outputs with 24-bit/96-kHz resolution in an external 19" rack module. All inputs and outputs are balanced for noise-free signal routing; 1/4" jacks are mounted on the rear panel. In addition to the (coaxial) S/PDIF digital interface and two separate MIDI inputs/outputs, PHASE 88 RACK features two balanced microphone inputs on the front panel.

They Both Feature

- ◆ Based on proven TerraTec technology, the PHASE 88 interface features optimized conversion components and cleverly designed circuits, enabling recordists to cut crystal-clear recordings on up to eight tracks simultaneously and even play back high-resolution 5.1 or 7.1 surround sound.
- ◆ To make the most of the 24-bit converter's excellent dynamic range, they are equipped with an on-board 20-channel hardware mixer with 36-bit internal resolution and 20-in-4 routing. Perfect solution for studios that do without an external mixer.
- ◆ Every input port features a dedicated analog stage that can be switched from -10 dBv to +4dBv, as well as a variable amp with up to 18 dB gains. Channel thru monitoring generates zero latency, and latency introduced by the ASIO 2.0 driver comes to less than three ms.
- ◆ Drivers for Windows 98/ME, 2000, XP (ASIO 2.0, DirectSound, MME with Multi-Client mode, and ASIO GSIF Multi-Client), Mac OS 9.1, and OSX (ASIO 2.0).

Phase 88

Up to four PHASE 88 recording systems can be synchronized and cascaded within a single computer. This means that systems with up to 40 physical inputs and outputs and 64 MIDI channels can be configured without adding to the CPU load.

Phase 88 RACK

Up to four PHASE 88 RACK systems can be synchronized and cascaded within a single computer. This means that the system can be extended to 40 physical inputs and outputs and eight MIDI I/Os with 128 MIDI channels without adding to the CPU load.

PHONO PreAMP Studio USB

Barely the size of a deck of cards, phono PreAmp Studio USB lets you professionally edit records and cassettes on your computer at a level of quality and then immortalize them on CD via a USB port—without sound card!



- ◆ For all turntables with moving magnet (MM) cartridges
- ◆ External housing makes opening up the computer unnecessary. Simply connect the record player to the PC through the phono PreAmp. That's it! No extra drivers or even a power outlet required: power is taken directly from the USB port.
- ◆ Adjustable three-stage input capacity
- ◆ Precision RIAA curve equalization for true-to-life playback
- ◆ Bundled Sound Rescue software lets you dramatically reduce or even get rid of unwanted noise such as crackling and static in real-time while maintaining the original, authentic sound quality.

mLAN Music Production System

The Yamaha 01X delivers power and flexibility never before offered in any computer audio product and represents a dramatic breakthrough in total integration and flexibility. No more expensive interfaces and control surfaces, the 01X combines both functions in one single unit with mLAN compatibility delivering all MIDI and audio data via a single cable. Featuring Yamaha's next-generation mLAN technology, the 01X guarantees high-speed audio and MIDI networking between computers, synthesizers and other

mLAN compatible devices. Connecting the 01X is simplicity itself thanks to the FireWire (IEEE1394) interface. Featuring low latency audio interfacing over mLAN for both Windows and Mac-based computers the 01X delivers remote control power never before offered in a multi-function device.



FEATURES

Total Control

- ◆ The 01X offers remote control power never before seen in a multi-function product of this type. With a level of integrated DAW support normally found only in dedicated remote controls costing as much as 01X itself, the 01X can also be the ultimate human user interface between you and your software.
- ◆ Functions which can be controlled directly from the 01X include track arming, transport control, plug in editing, mixing, window selection and many more using existing and popular control protocols. This means you have support straight out of the box for Cubase SX, Nuendo, Sonar, Logic, Digital Performer and many more software products besides.
- ◆ As well as being the perfect remote control partner for your sequencer or digital audio workstation software, 01X will also control a wide range of parameters with many of your software synthesizers and as the 01X also works as a multi-port MIDI interface, your existing hardware MIDI devices can be connected directly to the 01X, making it truly the heart of your working environment.

Total Mixing Power

- ◆ Built on world-renowned 96kHz DSP technologies, found in Yamaha's flagship DM2000, 02R96 and 01V96 digital mixers, the 01X not only works as a professional digital mixing interface for your computer but also as a total recall, stand-alone digital mixer, ideally suited for live performances.
- ◆ High quality mic pre-amps, 48V phantom power on balanced XLR and TRS, line inputs let you plug in guitars, microphones or indeed any musical instrument and know that the quality of your signal is maintained throughout.

DSP

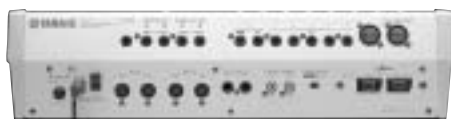
- ◆ Full dynamics processing, including compressors, gates and limiters as well as 4 band parametric equalization on every one of the 28 digital mixing channels, and two world-class 32-bit effects processors means that the 01X puts no strain on your host computer for mixing or audio processing. Fully motorized faders mean that your mix is recalled at the touch of a button, and is accurately tracked during the course of your song.

Total Network

- ◆ Yamaha's 01X is the first product to feature Yamaha's next generation mLAN technology. Offering high speed audio and MIDI networking between computers, synthesizers and other mLAN compatible products, the 01X offers more than any previous computer music product has ever delivered.
- ◆ As Yamaha's mLAN technology is based on the industry standard IEEE1394 (FireWire) buss, connecting up your 01X is as simple as plugging in a single cable. Perfect for any environment, the 01X is as happy connected to a laptop as to a desktop computer.
- ◆ mLAN being a true network, and not just a point to point connection system, allows for up to 63 mLAN compatible devices to be linked together.
- ◆ And with mLAN using a single cable to send multichannel audio and MIDI, you need never have to worry about opening up your computer, fiddling with messy IRQ's or wrestling with awkward set-up configurations. 01X means you just plug in and play.

Total Expansion

- ◆ Based on mLAN, the 01X can be expanded to add more channels with optional mLAN channel expansion units, meaning that the system can grow with your needs.
- ◆ Up to 16 extra analog inputs can be added to over mLAN with the 01X internal digital processors and mixing channels handling the routing/effects/EQ and dynamics.



Inputs and Outputs

- ◆ Eight analog inputs including: two balanced XLR mic pres with switchable phantom power; and six 1/4" TRS balanced line inputs. Input eight also features a dedicated Hi-Z 1/4" instrument input.

TOTAL SOFTWARE SUPPORT

Unlike other solutions on the market, there is no need to switch to one specific application just to get the full benefit of 01X. With low latency 24-bit/96kHz audio driver support for Windows XP and Macintosh (OS9/OSX) computers as well as full MIDI capability, the 01X slip's into your existing working environment with absolute ease.

Bundled with the 01X is a professional suite of user interface control software and commercially available VST effects plug-ins to enhance even further your experience of working with the most powerful computer audio product ever conceived. While 01X itself has one of the most intuitive user interfaces yet designed, using 01X in conjunction with Yamaha's acclaimed Studio Manager, you can also instantly see and control every parameter directly from a computer screen. On top of this 01X comes with a VST compatible 01X channel module which mimics the hardware DSP and functions of the console, and lets you copy parameters from Studio Manager directly into your VST hosting application, offering a level of integration never before thought possible.

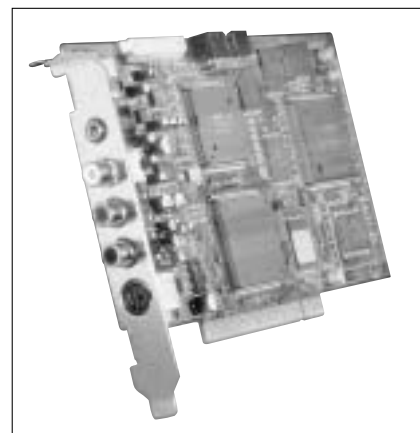
Also with 01X are three world-class VST plug-ins offering enhanced vocal processing, final mastering and studio quality, formant-accurate pitch correction.

SW1000XG

PCI XG/Hard Disk Recording/Effects Processing Card

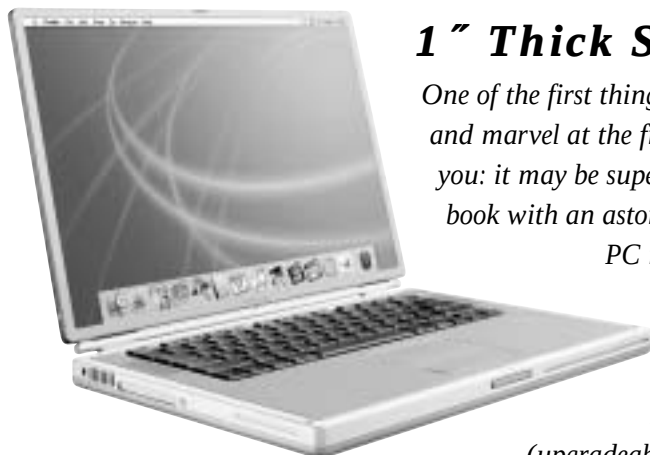
The SW1000XG is an audio production card with over 1,200 instruments including an incredible 46 drum kits. It features 12 mono (or six stereo) playback channels and multiple effects buses. And it can be set up so that its effects are available to both audio and MIDI tracks within your sequencing software. Additionally, effects can be applied to the output of a software synth package, or to a device that's connected to the card's line input. Any combination of these set-ups is also possible.

There are over 70 fully-programmable effects, which are configured as a mixed bag of insert and auxiliary processors. Up to six of them can be used in parallel (these include a reverb, chorus, variation, two inserts and a master parametric EQ) and effect types can be switched on-the-fly over MIDI—and all this without touching one drop of your computer's main CPU, leaving it free to handle even more audio tracks or additional software-based effects.



- ◆ 20 MB wave ROM with over 1000 PCM samples
- ◆ 7 independent 24-bit effects sections including 12 Reverb, 14 Chorus, 70 Variation, 43 Insertion 1 and 43 Insertion 2 effects, 5-band multi EQs on the master stage, and channelized EQ with hi/low and gain on every single part. Optional PLG100VH adds another 4 unique "VH Insertion" effects for instant harmonies and "Gender Control".
- ◆ More than 1000 normal voices and more than 45 drum kits (kits... not sounds, including the way cool 'Coffin kit' and a host of new analog drum samples).
- ◆ Real SVA physical modeling synthesis in hardware so no latency or CPU overhead
- ◆ Two A/D inputs for independent analog effects processing, stereo analog outputs, S/PDIF, plus 48 channel MIDI support.
- ◆ S/PDIF digital connector.
- ◆ Tone Generation : AWM2 + optional PLG100VL (Virtual Acoustic Synthesis)
- ◆ Sound Module Mode : XG (including VL-XG if fitted), TG300B (GS), C/M (MT32) all fully programmable.
- ◆ Polyphony : 64 notes + 1 (VL) (if fitted)
- ◆ Multi-timbral capacity : 32 parts internal, 16 part external (48 part total)

POWERBOOK G4



1" Thick Studio that Travel With You

One of the first things you notice about the PowerBook G4— after you admire the looks, and marvel at the fit and finish — is the number of ports it has. And that's when it hits you: it may be superslim and ultralight, but it also happens to be a full-featured notebook with an astonishing lineup of built-in professional capabilities. And unlike some PC manufacturers who ship lightweight PC notebooks that shed pounds by shedding functionality, Apple makes no compromises. Available in three sizes, PowerBook G4 models feature optical drives — the legendary SuperDrive (DVD-R/CD-RW) on the 15- and 17" models, and the DVD-ROM/CD-RW Combo drive (upgradeable to the SuperDrive) on the 12" model.

- ◆ All feature FireWire and USB, with an additional FireWire 800 port on the 17"
- ◆ All feature S-Video output for connecting to a TV or projector
- ◆ Connect the PowerBook G4 to a PC network or to a Windows PC (and to most USB printers and scanners, as well as Firewire digital cameras, camcorders and external drives). Share .doc, pdf, jpg, gif, tiff, MPEG, Windows Media, QuickTime, MP3, MIDI and CD files with PC users.
- ◆ 56K modem is standard, while Bluetooth (wireless connectivity) is built into the 12- and 17" models and is available as an option for the 15" model.
- ◆ The 15- and 17" come with Gigabit Ethernet (10/100BASE-T Fast Ethernet on the 12" model).
- ◆ Supplied lithium-ion battery powers them for up to 5 hours depending on system configuration and usage.
- ◆ Housed in a lightweight and durable aluminum alloy enclosure, the 12- and 17" are resistant to stains and scratches. They also have a drop-dead gorgeous design — perfectly smooth on all surfaces, with no doors, protruding latches or levers to break, no external buttons to accidentally press, and no sharp edges to catch on your clothes.
- ◆ The 15-inch is encased in titanium, the exceptionally strong and exceptionally light metal used in supersonic aircraft engines.

POWERBOOK CONFIGURATIONS

Order no.	M8760LL/A	M8858LL/A	M8859LL/A	M8793LL/A
Processor	867MHz PowerPC G4	867MHz PowerPC G4	1GHz PowerPC G4	1GHz PowerPC G4
Cache	256K SRAM Level 2 cache	256K SRAM Level 2 cache, 1MB DDR SRAM Level 3 cache		
Memory	256MB PC2100 DDR SDRAM	256MB PC133 SDRAM	512MB PC133 SDRAM	512MB PC2700 DDR SDRAM
Display (Diagonal)	12.1", 1024x768, TFT XGA	15.2", 1280x854, TFT	15.2", 1280x854, TFT	17", 1440x900, TFT widescreen
Graphics	NVIDIA GeForce4 420 Go with 32MB of DDR SDRAM	ATI Mobility Radeon 9000 with 32MB of DDR SDRAM	ATI Mobility Radeon 9000 with 64MB of DDR SDRAM	NVIDIA GeForce4 440 Go with 64MB of DDR SDRAM
Hard Disk Drive	40GB Ultra ATA/100	40GB Ultra ATA/66	60GB Ultra ATA/66	60GB Ultra ATA/100
Optical Drive	Slot-loading Combo (DVD-ROM/CD-RW)	Slot-loading Combo (DVD-ROM/CD-RW)	Slot-loading SuperDrive (DVD-R/CD-RW)	Slot-loading SuperDrive (DVD-R/CD-RW)
Ethernet	Built-in 10/100BASE-T	Built-in 10/100/1000BASE-T (Gigabit)		
Modem	Built-in 56K V.92 modem	Built-in 56K V.92 modem	Built-in 56K V.92 modem	Built-in 56K V.92 modem
Wireless Networking	Built-in Bluetooth 1.1; AirPort Extreme ready	Optional Bluetooth 1.1 adapter; AirPort ready	Optional Bluetooth 1.1 adapter; built-in AirPort Card	Built-in Bluetooth 1.1; built-in AirPort Extreme card
System Software	Mac OS X v10.2 Jaguar	Mac OS X v10.2 Jaguar	Mac OS X v10.2 Jaguar	Mac OS X v10.2 Jaguar
Software	QuickTime, iCal, iChat, iMovie, iPhoto, iTunes, iDVD (requires SuperDrive), DVD Player, Mac OS X Mail, Microsoft Internet Explorer, EarthLink (includes 30 days of free service), Acrobat Reader, Art Directors Toolkit, FAXstf, FileMaker Pro Trial, GraphicConverter, Microsoft Office v. X Test Drive (12-inch and 17-inch models), OmniGraffle, OmniOutliner, QuickBooks for Mac New User Edition, Developer Tools, Apple Hardware Test			
Video Accessories	Apple Video Adapter and Apple VGA Display Adapter	Apple DVI to VGA Adapter and S-Video to Composite Adapter		
Hardware Accessories	Modem cable, power adapter, AC wall plug, power cord.			

APPLE

iMac



1GHz 17-inch iMac

The 17" iMac dazzles with its brilliant 17" widescreen flat-panel display that glides through the air, allowing you to adjust its height, depth or angle with just a touch of your finger. But what's more amazing is its compact base which packs a powerful 1GHz PowerPC G4 processor with Velocity Engine, 256MB of PC2100 (266MHz) Double Data Rate (DDR) main memory (expandable to 1GB), GeForce4 MX graphics with 64MB of DDR graphics memory and an Ultra-ATA/100 80GB hard disk spinning at 7200 rpm. You also get AirPort Extreme and Bluetooth wireless capability, and the best-of-breed digital lifestyle applications that have convinced so many PC users to switch to the Mac platform.

FEATURES

iLife—it all connects

Bundled with the iMac is a host of iLife software applications including iTunes, iPhoto, iMovie and iDVD. They let you be creative with your pictures, music and movies— and share them—in ways that PC users can only dream about. And whether you're creating your own music CDs, editing digital video, or authoring DVDs, you can do all without thumbing through a manual.

SuperDrive

The 17" iMac is equipped with the SuperDrive (DVD-R/CD-RW) allowing you to burn audio and video on a DVD disc that plays in almost any standard DVD player. Even better, the SuperDrive burns DVDs at 4x speed, twice as fast as before.

54 Mbps AirPort Extreme

Say goodbye to having to set up your computer near a phone. Pop the AirPort Extreme Card into the 17-inch iMac, and you're ready for wireless networking from anywhere in your home or dorm — up to 150-feet from an AirPort Extreme Base Station.

Sync with Bluetooth

The 17-inch iMac can be custom-configured with an internal Bluetooth module to connect your digital devices wirelessly. Operating within a 30-foot radius, it enables wireless data transfers between a rapidly growing list of Bluetooth-enabled products. Using iSync, for instance, you can use Bluetooth to synchronize your personal information between your iMac, your mobile phone and your Palm OS-based handheld.

Extreme Graphics

The 17" iMac has an NVIDIA GeForce4 MX graphics processor with 64MB of DDR RAM. The NVIDIA GeForce4 MX delivers 1.1 billion textured pixels per second. And since the graphics processors feature dedicated RAM — unlike some PC graphics cards that share main memory — they take over the transform and lighting calculation functions from the iMac's central processing unit (CPU), freeing the PowerPC G4 to perform essential system tasks faster than ever before.

Space-Saving Design

When developing the iMac, Apple used a rigorous design approach that optimized every available bit of space—and no wasted corners. Starting with a custom-designed circular logic board that fills the entire diameter of the base, Apple engineered enough space to fit in the full-height SuperDrive. On top of the optical drive are a high-capacity 3.5" hard disk drive and even the power supply — a split design that tucks neatly into the top of the base.

Speakers and Audio

Includes Apple Pro Speakers that handle 18 watts of undistorted digital sound. And since the iMac also provides power to the speakers, you don't need an additional power brick. The result? Reduced cable clutter. Features an internal speaker, internal tripath digital amplifier, Apple Pro Speaker jack, headphone jack, and an audio line-in jack that lets you use it as a sound editing studio.

iBook

The Most Affordable Mac Notebook Ever

Perfect for everything from homework to playing games, and from watching DVD movies to burning your own music CDs. With its extra long battery life, compact size and ultralight weight, the 4.9-pound iBook can accompany you everywhere. And with a choice of 12.1" or 14.1" displays, 800MHz or 900MHz PowerPC G3 processors, 30GB or 40GB hard drives, 128MB or 256MB of RAM expandable to 640MB — plus optional AirPort (802.11b) wireless networking and FireWire, USB and Ethernet ports — the iBook gives you world-class performance in a slim, stunning design.



COMPUTER HARDWARE

865

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APPLE

POWER MAC G5

COMPUTER HARDWARE

866



Computers for Music Creation

The world's fastest personal computers and the first with a 64-bit processor — which means they break the 4 GB barrier and can use up to 8 GB of main memory, Apples new G5 line combines rock solid engineering reflective of the full-throttle Xserve architecture with new technologies for massively enhanced output and connectivity. Available at speeds up to dual 2GHz with a new ultra-high bandwidth system architecture featuring AGP 8X and PCI-X these turbocharged Power Mac rips through digital video and audio projects faster than Pentiums can say “uncle”.

Jointly developed by Apple and IBM, the 64-bit PowerPC G5 processor supports up to 8GB of 400MHz, 128-bit DDR SDRAM — four times more than a typical PC. More main memory and fast 6.4 GBps throughput means you can write large projects to memory 40x faster than to a hard disk.

Available in three powerful configurations — 1.6GHz, 1.8GHz and a dual 2GHz model, they each feature the legendary 4X SuperDrive (DVD-R/CD-RW), three PCI-X slots, one FireWire 800 and two FireWire 400 ports, three USB 2.0 ports (plus two USB 1.1 ports on the keyboard), ADC connector, DVI connector, analog audio I/O, optical S/PDIF I/O, front

headphone and speaker jack and built-in Gigabit Ethernet — as standard. In addition, all are AirPort Extreme-ready, and offer Bluetooth capability as a build-to-order option. Finally, each Power Mac G5 is supported by Mac OS X's robust foundation, which features multithreading and symmetric multiprocessing for an additional performance boost.

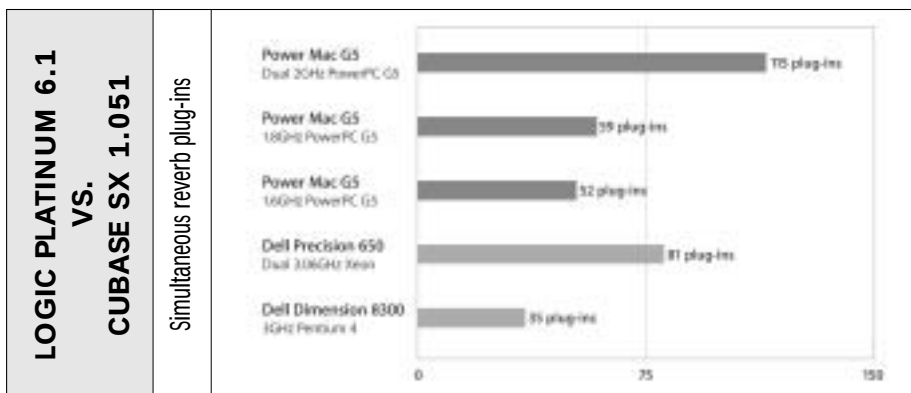
FEATURES

Exceptional Performance

- ◆ The latest in PCI technology, the PCI-X protocol is perfect for high-performance PCI devices, increasing speeds from 33MHz to 133MHz and throughput from 266MBps to 2GBps.
- ◆ Gigabit Ethernet, FireWire, USB 2.0 and optical digital and analog audio are all integrated through two bidirectional 16-bit, 800MHz HyperTransport interconnects for a maximum throughput of 3.2GB per second.
- ◆ Ultra-high bandwidth system architecture features a 1GHz frontside bus — one on each processor — for maximum throughput. And a point-to-point system controller lets data move directly between subsystems, without affecting processor function.
- ◆ Designed for whisper-quiet operation, the Power Mac G5's enclosure houses four discrete thermal zones to compartmentalize the primary heat-producing components. Fans in the zones spin at very low speeds resulting in a system three times quieter than the Power Mac G4.

Music and Audio

The Power Mac G5 supports more tracks and more plug-ins than any previous Power Mac— giving the audio pro a wealth of creative options all in a native environment. In addition, Mac OS X Core Audio (see box on next page) offers a scalable platform supporting 32-bit high resolution audio, a plug-in called Audio Units for DSP and Virtual Instruments, and plug-and-play connectivity for modern and legacy audio gear. And the built-in optical S/PDIF connects to other audio equipment for pristine sound quality without troublesome ground loops.



The dual 2GHz Power Mac G5 can play 115 tracks, compared with a maximum of 35 tracks on the Dell Dimension 8300 and 81 tracks on the Dell Precision 650. More impressively, the 1.6GHz single-processor Power Mac G5 played 50 percent more tracks than the 3GHz Pentium 4-based system.



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POWER MAC G5

64-bit Performance

The PowerPC architecture was designed from the beginning to run both 32-bit and 64-bit application code, offering seamless transition to 64-bit performance. Current 32-bit code — such as Mac OS X, the Mac OS 9 Classic environment and existing applications — runs natively at processor speed. With no interruptions to your workflow. And no additional investment in software required.

Graphics and Display Support

- ◆ Compared with the AGP 4X interface, the Power Mac G5's AGP 8X Pro graphics bus effectively doubles the maximum transfer rate and doubles the amount of data transferred in a single AGP bus cycle. The 66MHz AGP 8X Pro bus strobes eight times per clock cycle, achieving a 533MHz data rate and a maximum bandwidth of 2.1GB per second — ideal for the ultrafast ATI Radeon 9800 Pro or NVIDIA GeForce FX 5200 Ultra graphics cards they include.
- ◆ Supports 1920 x 1200 pixel digital resolutions and 1600 x 1200 analog resolutions
- ◆ ADC and DVI connectors; DVI to VGA adapter included
- ◆ Dual display support for extended desktop and video mirroring modes
- ◆ Support for two Apple flat panel displays

Storage and Expansion

- ◆ Two Serial ATA controllers supporting up to 150-Mbps data throughput per hard drive
- ◆ Two 3.5-inch hard drive expansion bays with drive guides for a second drive
- One 80GB or 160GB 7200-rpm Serial ATA drive installed in standard configurations
- Support for up to two internal Serial ATA drives; 500GB maximum system capacity
- 8MB memory buffers on all hard drives
- ◆ Optical drive bay with SuperDrive (DVD-R/CD-RW) installed; writes DVD-R discs at up to 4x, reads DVDs at up to 8x, writes CD-R discs at up to 16x and CD-RW discs at up to 10x, reads CDs at up to 32x speed
- ◆ One of the following PCI expansion configurations: Three open full-length 64-bit, 33MHz PCI slots, or one open full-length 64-bit, 133MHz PCI-X slot and two open full-length 64-bit 100MHz PCI-X slots.

Mac OS X Core Audio

Musicians, audio pros and music educators have long recognized the Mac as the superior platform for creativity. Historically, third party developers augmented the native capabilities of Macintosh with a wide variety of hardware, software and system add-ons, making it possible to use the Mac as a virtual recording studio. However, configuring such a studio became quite complex, and didn't allow for the highest level performance possible. With Mac OS X, professional-level audio is here. Mac OS X Core Audio integrates audio functions directly into the operating system in ways never before possible, enabling unprecedented performance and ease of use in your virtual studio. Core Audio lays a new foundation for the next generation of world-class audio and music applications from innovative developers.

Performance

Mac OS X delivers the best audio performance in desktop computing. The most fundamental measure of audio performance is throughput latency. That's the time it takes for audio to enter your Mac, travel through the system to your application and then pass back out to your monitoring system (speakers). Historically, Mac OS offered excellent latency of about 10ms. The Core Audio HAL (Hardware Abstraction Layer) provides ultra low latency of only 1m — and you get this performance in a full multi-channel environment.

Stereophonic Multi-Channel

Previously you had to install third-party system extensions to work with more than a 2-channel stereo mix. Now with Mac OS X offering native support for multiple channels, you can simultaneously record with more than two microphones, and perform large-scale professional tape transfer in a single pass, with greatly improved performance. The Core Audio HAL also allows multiple applications to share the same device. This means that you could assign channels 1-6 of a eight channel output device to a multi-track program, such as Logic, while leaving a virtual instrument like Reason with channels seven and eight.

High Fidelity

Core Audio manages all audio as 32-bit floating-point data. This allows your Mac to efficiently handle 24-bit/96 kHz audio as well as higher resolutions. Core Audio also delivers highly optimized sample rate converters to allow programs that do not yet use this high-resolution format to provide data to Mac OS X without truncation.

Audio MIDI Setup

Mac OS X has an easy to use setup application called Audio MIDI Setup. This provides applications with the ability to manage MIDI and define a system-wide MIDI configuration that is available to all of your applications. In addition, Mac OS X provides applications with Music Services, which are the fundamental functions of MIDI sequencers including cut, copy, paste, repeat and other common MIDI editing routines.

Reverb-erb-erb

In the absence of a system level plug-in architecture, third party developers created a vast array of DSP effects which are mutually incompatible. Core Audio enables developers to offer audio plug-ins in a more centralized manner, called Audio Units, making it simple to manage the audio capabilities you add to your setup. Apple includes several Audio Units in Mac OS X, including a Velocity Engine-optimized reverb and a sample rate converter.

Plug and Play

Mac OS X includes USB class drivers for connecting audio and MIDI devices to your Mac, and will automatically recognize those devices that comply with industry-standard specifications when you plug them in. You don't have to install extra software to use them.

POWER MAC G5

Peripherals and Audio

- ◆ The Power Mac G5 has a FireWire 800 port, the next generation high-speed serial interface, in addition to two FireWire 400 ports (one on the front panel and three USB 2.0 and two 1.1 ports).
- ◆ One of the fastest peripheral standards ever developed, FireWire 800 doubles the throughput of the original technology and increases the maximum connection distance —up to 100 meters. Also supports many new types of cabling, making it indispensable for transferring massive files
- ◆ Front headphone jack
- ◆ Built-in speaker
- ◆ Stereo audio line in and line out minijacks
- ◆ Optical digital audio I/O (toslink)

DVD-R/CD-RW SuperDrive



comes with the software needed to create your own DVDs — faster than ever before. With iDVD preinstalled and with optional DVD Studio Pro software, the G5 is a complete DVD production studio. And it's the fastest on the planet, too. And if you want to

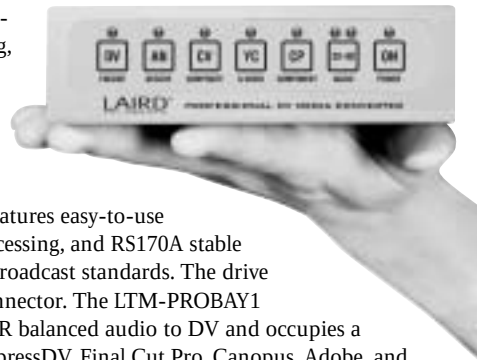
watch a DVD while your work is burning, or archive material at the same time, all Power Mac G5s offer a second optical bay. Choose a combo DVD/CD-RW to fill it up.

- ◆ SuperDrive-equipped G5s lets you read and burn both CDs and DVDs that can be played in most consumer DVD players.
- ◆ The SuperDrive (DVD-R/CD-RW) reads DVD titles at 8x and writes to 4.7GB DVD-R discs at 4x.
- ◆ Also reads CDs at 32x, writes to CD-R at 16x, and writes to CD-RW at 10x.
- ◆ It supports DVD-Video, DVD-ROM and DVD-R, as well as CD-ROM, CD-Audio, CD-R, CD-RW, CDI, CD Bridge, CD Extended, CD Mixed Mode and Photo CD.

Laird Telemedia LTM-PROBAY1

Slide-in Bi-Directional DV Media Converter for Power Mac G4 Systems

With little more than a screwdriver, the LTM-PROBAY slips into a single drive bay opening, turning an existing computer system into a complete DV editing workstation. The LTM-PROBAY is a fully functioning analog-DV-analog media converter in a 5.25" computer drive bay enclosure. Housed in the new DVMOD technology, PROBAY features easy-to-use front-panel controls, high-quality signal processing, and RS170A stable video output compliant with SMPTE/EBU broadcast standards. The drive simply plugs into a standard drive power connector. The LTM-PROBAY1 converts component, composite, YC, and XLR balanced audio to DV and occupies a single G5 drive bay. Compatible with Avid XpressDV, Final Cut Pro, Canopus, Adobe, and any other DV-based edit system software.



Communications

- ◆ 10/100/1000BASE-T Ethernet connector (RJ-45)
- ◆ Built-in 56K V.92 modem card
- ◆ Power Mac G5is Bluetooth-ready. Like AirPort Extreme, Bluetooth connects digital devices wirelessly. Operating within a much shorter range than AirPort Extreme, it enables wireless data transfers between a growing list of Bluetooth-savvy products.
- ◆ Built-in antennas and expansion slot for optional 54-Mbps AirPort Extreme Card. AirPort Extreme is a wireless networking technology based on the IEEE 802.11g standard. Just add an AirPort Extreme Card to the Power Mac G5 and it can wirelessly connect to an AirPort Extreme Base Station at speeds up to 54Mbps. That's nearly five times as fast as the transfer rates of the current 802.11b wireless standard.

Power Mac G5 Specifications:

Model Number	M9020LL/A	M9031LL/A	M9032LL/A
G5 Processor	1.6 GHz	1.8 GHz	Dual 2GHz
L2 Cache (per processor)	512K	512K	512K
Frontside Bus	800MHz	900MHz	1GHz per processor
Main Memory (DDR SDRAM)	256MB PC2700 (333MHz) 4GB maximum	512MB PC3200 (400MHz) 8GB maximum	512MB PC3200 (400MHz) 8GB maximum
Ultra ATA/100 Hard Drive	80GB (7200 rpm)	160GB (7200 rpm)	160GB (7200 rpm)
Optical Drive	SuperDrive DVD-R/CD-RW	SuperDrive DVD-R/CD-RW	SuperDrive DVD-R/CD-RW
Graphics Support	NVIDIA GeForce FX 5200 w/64MB of DDR SDRAM	NVIDIA GeForce FX 5200 w/64MB of DDR SDRAM	ATI Radeon 9600 Pro w/64MB of DDR SDRAM
High Performance I/O	One FireWire 800 port, two FireWire 400 ports (one on front) three USB 2.0 ports (one on front), two USB 1.1 ports (on keyboard), AGP 8X Pro slot with graphics card installed, ADC and DVI connectors for dual display support.		
Audio	Optical digital audio I/O, analog audio I/O, front headphone minijack, speaker		
Networking	Built-in 10/100/1000BASE-T Ethernet and 56K modem; AirPort ready		

Each includes Apple keyboard and mouse, DVI to VGA adapter, AirPort antenna; Mac OS X v10.2 "Jaguar", iLife (iMovie, iPhoto, iTunes, iDVD), QuickBooks for Mac, FAXstf, Art Directors Toolkit, Microsoft Office v.X Test Drive, FileMaker Pro Trial, OmniGraffle, OmniOutliner, GraphicConverter, QuickTime, iChat, Safari, Sherlock, Address Book, iCal, iSync, DVD Player, Mail, Acrobat Reader, Classic environment & Apple Developer Tools.

FLAT-PANEL DISPLAYS

17", 20" and 23" Digital Flat-Panel Displays

An Apple display is an essential component of the Power Mac G4 user experience. Apple offers a lineup of pure-digital flat-panel displays that provide superior image quality and vivid color. The level of integration and the elegance of these displays present Power Mac G4 users with the best possible window on their work.

All Apple displays deliver the benefits of thin and light LCD technology, with twice the brightness, twice the sharpness, and twice the contrast of a standard CRT display. They can be calibrated for color-managed workflow environments and maintain consistent color and quality without requiring frequent recalibrations. Apple displays feature an adjustable base that allows users to adjust the viewing angle effortlessly. And since dual display capabilities are built into every Power Mac G4, it is easier and more cost-effective than ever to add a second display.



- ◆ With razor-sharp images, deeply saturated colors and brilliant screens, these best-of-class displays offer 16.7 million colors, a wide viewing angle (170° horizontal and vertical), incredible color fidelity, and an ultrafast pixel response you'll love when working with audio applications—to say nothing of elegant industrial design.
- ◆ Set up is a snap, thanks to the Apple Display Connector (ADC). A single cable carries the digital graphics, power, and USB signals to the display, dramatically reducing the number of cables you have to deal with. Built-in, two-port USB hub (discreetly positioned in the back of the displays) lets you connect peripherals.
- ◆ Twice the brightness, twice the sharpness, and twice the contrast ratio of the typical CRT display. And unlike other flat panel displays, they are designed with a pure digital interface to deliver distortion-free images that never need adjusting.
- ◆ The 17" Apple Studio Display with 1280-by-1024-pixel resolution, is an ideal alternative to a large CRT display
- ◆ The 20" Apple Cinema Display features 1680 x 1050 pixel resolution for display of application palettes. Widescreen format for simultaneous display of two full pages of text and graphics, or full-screen DVD and QT movies
- ◆ The 23" Apple Cinema HD Display provides unparalleled image quality and richly saturated color. Full high-definition resolution of 1920 x 1200 pixels for display of high definition (HD) still and video imagery. Even with such a wide viewing space, text remains sharp and colors are vivid and distortion free from edge to edge. The Cinema HD Display is perfect for enhancing large graphics—enabling high-performance image manipulation in gorgeous, richly saturated, flicker-free color.

FLAT PANEL DISPLAY SPECIFICATIONS

	Apple Studio Display	Apple Cinema Display	Apple Cinema HD Display
Model	M7649ZM/B	M8893ZM/A	M8537ZM/A
Screen Size and Type	17-inch (viewable) active-matrix LCD	20-inch (viewable) active-matrix LCD	23-inch (viewable) active-matrix LCD
Maximum Resolution	1280 by 1024 pixels	1680 by 1050 pixels	1920 by 1200 pixels
Viewing Angle	170° horizontal; 170° vertical	170° horizontal; 170° vertical	170° horizontal; 170° vertical
Color Support	16.7 million colors	16.7 million colors	16.7 million colors
Input/Output ports	Apple Display Connector; two-port, self-powered USB hub	Apple Display Connector; two-port, self-powered USB hub	Apple Display Connector; two-port, self-powered USB hub
Agency Approvals	ENERGY STAR, TCO 95	ENERGY STAR, TCO 95	ENERGY STAR, TCO 95

iPOD



Ultra-Thin Digital Music Players

The super-slim iPod redefines what a digital music player should be. It downloads music at blazing speed and can hold up to 7500 songs—so you can take your entire music collection with you wherever you go. It weighs only 5.6 ounces—which is incredibly, 15% lighter than 2 CDs! It is also 65% smaller than a CD and just 0.62 inches thick, so it comfortably fits in the palm of your hand or pocket — and your life. Yet it offers a huge 10GB, 15GB or 30GB hard drive. Do the math: that's space enough to store three weeks of music — played continuously, 24/7 — or one new song a day for the next 20 years. Available for Mac and Windows the iPod incorporates hassle-free functionality and stunning, well-considered design that places it far ahead of the curve and the competition. Use the touch wheel to quickly and easily scroll through an entire music collection—using just one hand!

FEATURES

- ◆ The iPod is designed for listening to digital music away from your computer — Mac or Windows—and one simple connection does it all. A handy dock connector on the bottom enables the iPod to link to a computer and sync files via FireWire 400 (Mac or Windows) or USB 2.0 (Windows only). The result? Blazingly fast transfer speeds that let you load an album in as little as 10 seconds.
- ◆ The 15GB and 30GB iPod come with a dock that makes charging and syncing easier than ever. An elegant, convenient home base for iPod on a desk or connected to a home stereo system, the dock provides syncing via FireWire or USB 2.0, charging via FireWire and audio line out for connecting to powered speakers or a stereo system.
- ◆ Designed to give you the best portable digital music experience ever, the iPod delivers the highest sound quality from input to output. iPod supports the most popular audio formats including MP3 (up to 320 kbps), MP3 Variable Bit Rate (VBR) and WAV — giving you access to a wide range of audio file types. And iPod is the only portable digital music player that supports the AAC format (Mac-only), which features CD-quality audio in smaller file sizes than MP3, so you can fit even more songs on your iPod.
- ◆ Have a particular set of songs you want to hear? Queue up as many songs as you like in a playlist while away from your computer. Want to customize the iPod interface to fit your musical leanings? Just look under settings in the Main menu.

Bundled Software

- ◆ For Mac users, iPod ships with iTunes 4. iTunes 4 supports ripping music into the new AAC format which combines pristine CD-quality sound with smaller file sizes, compared to MP3s. And iTunes 4 lets you share and stream playlists from your personal music library to up to three other Macintosh computers for personal use.
- ◆ For Windows users, iPod includes the award-winning PC media player MUSIC-MATCH Jukebox Plus. As you add new songs or rearrange your playlists in MUSIC-MATCH Jukebox, the music will automatically update on iPod the next time it is connected to your PC.

Supplied Accessories

- ◆ Supplied earbud-style headphones offer a strong 20Hz to 20kHz frequency response range for high-quality sound with minimal distortion. And with Neodymium drivers, these headphones are five times more powerful than digital player headphones that use aluminum, cobalt or ceramic drivers.
- ◆ The 15GB and 30GB models come with a wired remote control that lets you fast-forward or rewind a track, play, pause and adjust volume — using just one hand.
- ◆ The 15GB and 30GB models also include an elegant carrying case with belt clip that protects your iPod. Clip it to your belt, purse or backpack for hands-free operation.

Optional Accessories

iPod Power Adapter:

Use an extra iPod Power Adapter for home, office or travel. The FireWire-based adapter allows you to charge your iPod when not connected to a computer.
iPod Dock

iPod Dock:

Add an additional dock for charging iPod at work or at home. Stereo line out lets the iPod Dock connects seamlessly to stereo speakers, making it a space-saving stereo.

Battery Pack:

Away from your computer for a few days? Optional backup battery pack gives you over 20 hours of battery life on four standard AA batteries.

Car Power Adapter:

Optional car power adapter includes a 3.5-mm lineout that plugs directly into a car stereo input jack so users can play iPod on the road.

World Travel Adapter Kit:

With the addition of this kit, iPod goes anywhere in the world. Includes six AC plugs with prongs that fit different electrical outlets around the world.

iSplitter:

Mini Stereo Y-Splitter connects two mini-stereo headphones or speakers to one jack so you can share your music with a friend.



Personal Digital Music Library

Bundled with the iPod (Mac version) as well as any Apple computer, iTunes 4 is easily the world's best application for managing and enjoying your music. iTunes allows you to manage an entire music collection with one application. Everything is in one place—downloads are in the same library as other music you've collected. Create personal playlists or Smart Playlists that update automatically based on your listening patterns and preferences. Listen to your music on a Mac or your iPod, or burn a custom CD of favorite songs or playlists. iTunes 4 provides a soundtrack to your life—add music to slideshows, soundtracks to movies, and background music to DVDs.

FEATURES

- ◆ iTunes 4 supports the AAC audio format (think high-quality sound with even smaller file sizes), and lets you share your music with other Mac computers on your local Ethernet or AirPort wireless network. And if you have a Mac with a SuperDrive, you can archive your entire music library to DVDs for safekeeping.
- ◆ A big part of MPEG-4 specifications, AAC (Advanced Audio Coding) is a cutting-edge encoding audio codec that's perfect for the Internet. AAC compresses much more efficiently than older formats like MP3 (which iTunes supports), while delivering quality rivaling that of uncompressed CD audio. In fact, AAC audio files compressed at 128 kbps (stereo) will be indistinguishable from the original uncompressed audio source.
- ◆ Music Sharing feature uses Rendezvous to give you remote streaming access to your personal music library from any room in your house. You don't have to manually configure anything, Rendezvous seeks out the other Macs on your local network and connects to them automatically.
- ◆ Generate dynamic Smart Playlists that reflect your preferences and listening habits. Instead of having to create playlists manually by clicking and dragging individual songs, you simply indicate what kind of music you like to hear. Set parameters with attributes such as Genre, Composer, Artist, Play Count, Last Played and so on—and then creates a personalized playlist that's in tune with your preferences.
- ◆ Automatically synchronizes with the iPod at high speeds. Simply connect iPod to your Mac via Firewire and download an entire music CD in just 10 seconds. Plus iTunes 4 lets you stay in sync with Play Count, Last Played and Song Ratings
- ◆ Access your iTunes digital music library and playlists from iPhoto, iMovie and iDVD. This allows you to use your music to build a slideshow in iPhoto, add a background soundtrack to your latest iMovie, or liven up your motion menus in iDVD.
- ◆ With iTunes it's easy to create CDs that play in your car, home stereo, Macs and on Windows-based PCs. With iTunes 4 though, CD burning gets even better with Soundcheck. Whenever you select a playlist in your library, the Browse button automatically turns into the Burn button. Click Burn CD, insert a blank disc and iTunes burns away. It's that simple.
- ◆ iTunes 4 can play spoken word content from Audible, the service that provides digital versions of books and publications.

The iTunes Music Store—Downloads Done Right



Instantly browse and buy music from your favorite artists. iTunes 4 comes with the fabulous iTunes Music Store stocked with hundreds of thousands of songs that you can preview and own with just one click.

CARILLON

AC-1

COMPUTER HARDWARE

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Audio Computer

When today's computers are on the drawing board, audio professionals are somewhere between the bottom and nowhere on the designer's list of target users. Working from the outside in, the average PC case does little more than keep the dog out. Covers and plastic front panels are wafer thin and employ clips rather than fasteners wherever possible, so as well as offering minimal sound insulation they also rattle like a snare drum when you monitor anything below 500Hz. They're also not designed to travel, so if you use a computer for audio, chances are you pretty much accept being tied to your own studio. On the other hand, the sophisticated manipulation of audio is one of the toughest jobs you could throw at a computer. Accurate timing and synchronization rely heavily on highly stable processing, and one minute of one track

of full bandwidth audio soaks up the same amount of memory as the text of ten novels. But the unremitting pressure to lower the price of consumer PCs frequently means manufacturers resort to the cheapest available components. From simple things like switches, down to boards, drives and even memory. And with the emphasis on straightforward 'office' applications and web browsing, expandability and future proofing are also low on the list of priorities. Spare motherboard slots for example and bays for additional internal and removable storage, are frequently in short supply or absent altogether. . .

Welcome to the AC1 Audio Computer

19" Rackmount Case Design

A PC fully loaded for audio can weigh as much as 50 lbs - heavier than most studio power amps. The design of a 19" rack mount enclosure to safely support this type of load, and accommodate requirements for a high level of access and connectivity, presents several unique challenges.

Carillon uses a box (case) that is over-engineered from high grade aluminum and 2mm 14-gauge steel to provide an incredibly strong and totally rigid housing. A full 4U height contributes to a particularly well cooled, spacious interior with generous capacity for retro-fit components. The massive front panel is precision die cast in ADC 12/LM2 aluminum alloy by 10,000psi high pressure casting machines. This method is far more costly than regular gravity die casting but delivers a stronger, more consistent material, cast to much closer tolerances.

But the Carillon Audio Computer is equally at home on the desktop largely due to specially designed, removable Sorbothane feet. If you do prefer this arrangement, it's worth noting that the fourteen gauge cover supports a conventional 17" monitor effortlessly. And nowhere is this heavy duty approach more appropriate than on the road—making these computers ideal for live and mobile recording use.

Internal layout is clean & spacious and the full-size ATX motherboards have six PCI slots and four USB ports for maximum expandability. Carillon uses Intel Pentium processors exclusively to consistently deliver the floating-point performance necessary for DSP intensive multitrack digital audio.

Front Panel



With software equivalents of most music technology hardware now available, 'software only' production is reality for a small but growing number of producers. But real controls are fast and fun so Carillon includes a bay to receive a variety of inexpensive optional control boards like 'tape' transport buttons, MIDI controller knobs and a jog-shuttle edit controller. The bay is user accessible by way of stainless steel hex bolts used to fix the main bezel.

High temperatures in some fully loaded enclosed racks, particularly live racks stacked with power amps, necessitate the intake of cooler air through the front panel. The intake features an easily replaceable filter.

There is a standard Neutrik bay housing the highest quality audio socket routed through to the computer's back panel. It can be permanently connected to the soundcard which often employs fiddly consumer grade connectors intended for infrequent 'install and leave' use. Alternatively, you can use it for a stereo headphone output.

In addition to three 5¼" bays, the Pentium 4 compatible chassis can accommodate a further two drives mounted transversely inside the machine, both in noise cancelling Silent Drive enclosures.



www.bhphotovideo.com

Quieter by Design

In an ideal world with little pressure on finances and floor space, noisy stuff like tape machines and computers are exiled to a 'machine room' which is acoustically isolated from the studio mixing area. But for many, even if the space is available, countless items come above a separate machine room on the studio shopping list, so the computer sits in the heart of the studio physically as well as well as functionally. The reality is that most studios operate from one room.

In this situation, comfortable, accurate monitoring is seriously compromised by a noisy computer (how can you hear your gate thresholds properly, or long fade-outs against a background of fan and drive noise?). Worse still, the need to record clean acoustic instruments and vocals can rule out the use of a standard PC altogether. Particularly when you can't run a microphone cable into the bathroom because you are recording yourself!

Solid State

The AC-1 enclosure design cuts hardware noise in two ways: First, the sound insulation properties of the thick steel and aluminum case substantially reduce transmitted noise from internal components. Second, the rigidity of these heavy gauge materials combined with the use of secure bolt fastenings, make for a highly vibration-damped structure. This effectively eliminates rattles and buzzes 'in sympathy' with fans, drives and the music you're monitoring.

Splendid Isolation

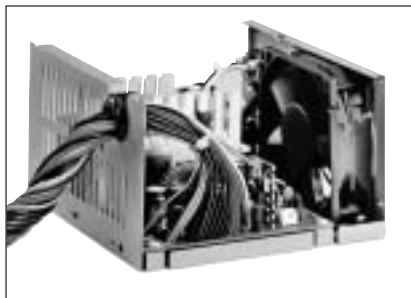
Anyone who has ever rested an acoustic instrument on a wooden table while playing, knows that vibrations are transmitted and amplified when solid objects make contact. To combat this the AC-1 incorporates absorbent rubber gaskets to the rear of the 19" rack ears, to reduce metal-to-metal contact between the computer and the rack, and so reduce vibration transmitted from one to the other.

Big Foot



For desktop users Carillon designed large removable feet, utilizing visco-elastic Sorbothane. This unique material is used to isolate scientific instruments and audio-

phile equipment from vibration. Its high storage modulus means that an extremely high proportion of input energy is dissipated rather than transmitted. (Although Sorbothane is extremely expensive, the feet are standard.)

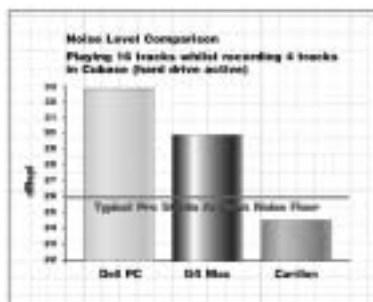


transformers with an all new fan, featuring substantially smoother fan-motor bearings and a reduced turbulence fan blade design.

A unique processor fan incorporates a radical 360% (radial fin heat sink). This patented design provides far greater surface area than conventional for increased heat dissipation with a reduced airflow requirement. In practice this means the fan can run far slower and more quietly.

However advanced the drive design, whirring drive platters and clicking heads can be further isolated by enclosing the drive completely in an acoustic sleeve. Carillon's Molex Silent Systems foam lined sleeve reduces drive noise by over 90% and includes two aluminum plates that conduct heat into the surrounding air and chassis mounts, and provide earth grounding.

Carillon fits Quantum Fireball plus hard drives as standard. They feature Quantum's own QDT (Quiet Drive Technology) and produce at least 4dB less noise than the average for comparably specified drives. We also offer the more expensive Fujitsu 'dynamic pressure bearing' drives as an option (marginally the quietest at the time of going to press) but find that the Silent Drive enclosure is so effective that, once fitted, the difference between the two brands is negligible.



Inevitably, a first impression of hardware noise is an early topic of conversation, and nearly everyone asks if we've switched it on yet! That really says more than a thousand dB measurements. Simply speaking, while Macs and PCs have always been clearly audible, the Carillon AC-1 is only barely audible - even in the quietest studio environments. But don't take our word for it. These graphs show the relative noise levels for a Dell PC, a Macintosh G4 and our Carillon Audio Computer, measured during busy hard disk activity and while idling.



CARILLON

AC-1

COMPUTER HARDWARE

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Carillonfix: Remote Control Technical Support

Although they'll be properly manned, Carillon does expect the telephone lines to be quiet for a computer music company. But if their on-screen manual doesn't show you how and they can't talk you through it, they'll be down but not out.

Carillonfix is a custom remote control application that lets their support engineers literally take the controls of your computer online. Book a session by phone or in the owners section on their website, launch the application at the arranged time and wait for them to dial in.

If you send a computer back to the supplier to fix a software problem you're none the wiser when you get it back. Working the Carillon way, you can watch them do repairs on screen (yes, the mouse actually moves) and communicate with their engineer via the onscreen chat window.

Discuss the pattern of the problem for example, even ask to see a particular fix again.

In the event of an irreparable software problem Carillonfix gives offers one final option. When they build your system they burn a hard drive backup onto CD. It is supplied with the computer but in case you're not confident about re-installation, Carillon also keeps a copy filed with your personal details. With your permission they can reconfigure your entire system online for you to start afresh. Unfortunately though, even Carillon can't fix your hardware online, but they're confident enough about their build quality to cover hardware failure with an advance replacement guarantee for components. Alternatively they'll collect your machine, repair it and send it back to you within three working days.



Loopstation: On-Line Sampling

Carillons exclusive On-Line Loopstation Application, searches, previews and downloads from a huge range of studio quality samples free of charge. Each Carillon AC-1 audio computer has the Loopstation search engine pre-installed. Simply click on the Loop icon on your desktop and once the Carillon server recognizes your unique user ID, you're into the latest library. You'll soon discover that the sample search engine is by far the most intuitive and exhaustive anywhere. Sounds and loops are logically multi-layer indexed and you can browse a full list of relevant samples, however far you have refined your search. But despite being sophisticated, its remarkably quick, employing hardware style logic for the user interface with absolutely no screen redraws.

- ◆ Preview and download are simplicity itself (Carillon has their own dedicated servers and E1 connection guaranteeing the fastest possible transfer), but where Carillon really shines is the quality of the samples - these are definitely not your average coverdisc promos. Thousands of Neve-mixed, Apogee-converted, 24-bit samples as good, or better by category than anything else out there—free of charge.
- ◆ In addition to these free of charge sounds the Carillon Loopstation will also carry an increasing range of third party samples, available for Carillon owners to download at a substantial discount. (And remember, you don't need a software sampler to use samples in your music. The samples are encoded as .WAV files, compatible with all the leading sequencing software.)
- ◆ The right sample can make a track - but finding that sound from poorly classified data currently available can take longer than most of us can afford. The ultra flexible engine lets you direct the search. Say you're working on a disco house track and looking for a drum loop: search 'loops by style', select 'house', find 'disco' and refine by instrument (maybe choosing 'drums', then 'acoustic'), before listing samples.



Complete Systems

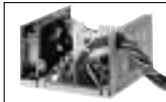
There are seven "Off the Shelf" Carillon Core Audio Systems. Each one incorporates their acclaimed heavy-duty, 19" all aluminum steel chassis—engineered for ultra-low noise and featuring Carillon's unique front panel patching and bays for their unique 'real controllers'. Every core system also includes:



standard with every system

Ultra-Quiet Components

- ◆ Carillon's own Ultramute Power Supply
- ◆ Molex Silent Drive enclosure
- ◆ Low-noise CPU cooling fan
- ◆ 1.44MB Floppy Disc
- ◆ 56Kbps Auto-Detect Modem
- ◆ Black Carillon keyboard and mouse



Bundled Software

Hundreds of dollars worth of killer applications, pre-installed and optimized.

- ◆ Steinberg Clean
- ◆ Steinberg Wavelab Lite
- ◆ Norton Ghost
- ◆ VST Plug-in Pack

Remote Support



- ◆ Carillon Fix literally enables their engineers to take control of your machine online
- ◆ Carillon's How & Help manuals and tutorials
- ◆ Carillon Image and Recovery Disk
- ◆ 3-Year Warranty

Loopstation Samples

Carillon's own ultra flexible search engine micro indexes by sound type A growing library of Neve mixed, Apogee converted 24-bit samples, including 5000 leading edge loops and instruments.



	CORE 1	CORE 2	CORE 3	CORE 4	CORE 5	GigaCore 1	GigaCore 2
Description	A solid reliable audio PC making an ideal starting point for many custom systems.	Step up to dual hard drives and greater processing power with confidence.	Take advantage of 533MHz front side bus processing speed for more serious applications.	Built for serious professionals, this unit features over 1GB of RAM.	The ultimate audio PC is ready to tackle the most serious applications with speed & grace.	Giga Studio users will benefit from expanded RAM & hard disc capacity & DVD-CDRW Combo Drive.	Serious Giga Studio users will appreciate the speed and capacity of this system.
Intel Processor	Pentium 4 1.7GHz	Pentium 4 2.0GHz	Pentium4 2.4GHz 533MHz FSB	Pentium4 2.53GHz 533MHz FSB	Pentium4 2.8GHz 533MHz FSB	Pentium 4 1.7GHz	Pentium4 2.8GHz 533MHz FSB
Intel Motherboard	D845EBG2L DDR 533 MHz	D845EBG2L DDR 533 MHz	D850EMV2L RDRAM 533MHz	D850EMV2L RDRAM 533MHz	D850EMV2L RDRAM 533MHz	D845EBG2L DDR 533 MHz	D850EMV2L RDRAM 533MHz
Video Card	ATI XPERT 2000 32MB	ATI XPERT 2000 32MB	Matrox G550 Dual Head 32MB DVI/CRT	Matrox G550 Dual Head 32MB DVI/CRT	Matrox G550 Dual Head 32MB DVI/CRT	ATI XPERT 2000 32MB	Matrox G550 Dual Head 32MB DVI/CRT
Memory	256MB 266Mhz PC2100 DDRRAM	512MB 266Mhz PC2100 DDRRAM	512 MB PC800 RD RAM	1024 MB PC800 RD RAM	1024 MB PC800 RD RAM	1024MB 266Mhz PC2100 DDRRAM	1024 MB PC800 RD RAM
Hard Drives	40GB Seagate Mark IV Ultra Quiet 7200 RMP	Two Seagate 40GB Mark IV Ultra Quiet 7200RMP	Dual 40GB/80GB Seagate Mark IV 7200RMP	Dual 40GB/80GB Seagate Mark IV 7200RMP	Two 80GB Seagate Mark IV 7200RMP	40GB plus 120GB WD SE HDD with 8MB buffer cache	40GB plus 120GB WD SE HDD with 8MB buffer cache
CD-RW Drives	Black Lite-On 40x12x40	Black Lite-On 40x12x40	Black Plextor 40x12x40	Black Plextor 40x12x40	Black Plextor 40x12x40	DVD-ROM	DVD-ROM
OS	Windows XP	Windows XP	Windows XP Pro	Windows XP Pro	Windows XP Pro	Windows XP	Windows XP Pro

Real Controllers

Carillon optional Real Controllers give you a traditional fingertip control of a variety of software functions and parameters. They connect internally, direct to the motherboard via their own drivers so you don't tie up valuable MIDI ports.

RK8 MIDI Controller Panel

A set of eight mappable MIDI controller knobs for use with virtual synthesizers, samplers, mixers, effects - pretty much anything with knobs or sliders. You can select General Midi, GS and XG or map parameters. We use high quality damped action pots and our own legible pointer knobs

JS1

Ideal for audio editing and also transforming the use of sequencers, the JS1 lets you set up to 20 locate points and jump directly to them with one or two button presses, in addition to having dedicated master in/out buttons. Jog/shuttle gives precise control over FF and REW as well as super-detailed scrubbing with unique jog calibration knob.

RTM 1 Transport Control

Feel comfortable with traditional transport controls? Then you'll love the RTM 1. Nikkai illuminating switches provide a reassuringly positive feel, and mimics your sequencer controls exactly. It also incorporates a switchable metronome. It's visual rather than audible with the metronome light flashing on the beat and the switch flashing on the bar.

FLAT PANEL LCDs

Sony Flat Panel LCDs are an artistic statement for your home or studio- even when they are turned off! Perfect for song writers, editors and producers. Superior focus and screen brightness, means sharp images and crisp text. You won't get flicker-induced headaches and eyestrain, even If you use the displays highest resolution. LCDs also use about half the power of comparable CRTs - a consideration if you run your computer for a good portion of the day.

BENEFITS:

Reduced Eyestrain -

Flicker free performance and minimal screen glare is easy on your eyes

High Brightness -

Dynamic, vivid images—especially under harsh lighting

Space Saving -

Ultra-slim styling maximizes desktop space. Plus they're wall or arm mountable.

Energy Saving -

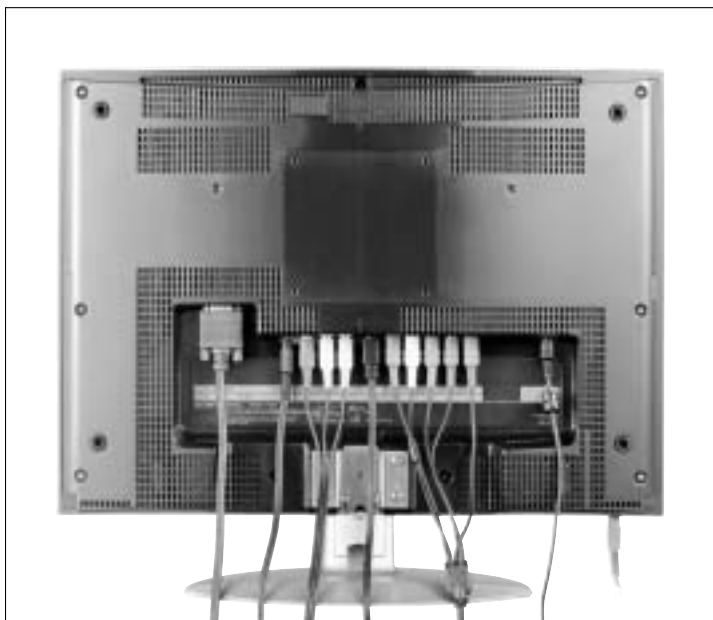
Low power consumption and energy bills



Regardless of which technology you choose, size does matter. A larger monitor offers larger viewing area and higher resolutions, making it easier to view text and graphics. More viewing area also means you have the ability to simultaneously open more windows side-by-side.

- 17- and 18" are a good choice if you spend a lot of time in front of your screen
- 19" are a the best choice if you use your display all day
- 21" and above are optimal for design and finance professionals who work on detailed graphics and large spreadsheets

Sony's innovative advances in display technology have revolutionized the user experience. Remarkable picture quality, stylish designs and a variety of convenience features including compatibility with both Mac and Windows operating systems. And this year's line-up is no exception:



- ◆ Sony's Auto ImageSet and Digital FlexRes technologies maximize display performance by automatically adjusting images at multiple resolutions. Vibrant images are housed in an assortment of ultra-slim, energy saving designs.
- ◆ TFT active matrix LCD technology combined with anti-glare coating, provides clear, flicker free images that reduce eyestrain.
- ◆ Slim Bezel innovative design combined with integrated power supply and cable management system keeps space-constrained work spaces organized and clutter-free. Adds efficiency and style to the home or office.
- ◆ Digital & analog input connections maximizes video performance, dual inputs support simultaneous computer connections
- ◆ Automatic and instant adjustment of images at multiple resolutions optimize video performance
- ◆ Stereo speakers provide stereo audio for multimedia, music and internet content
- ◆ Lower power consumption provides increased savings throughout the life of the product
- ◆ Wall mountable, the stand base can be removed to support arm or wall mount applications

FLAT PANEL LCDs

You've made the decision to buy a computer system. Or you simply want to upgrade your monitor. Great! Now... which one should you choose? With so many sizes, features and technologies available, choosing the right display to fit your needs can be confusing. Sony understands that different people have different needs. So they've created a full line of Flat Panel LCDs -a comprehensive variety of models each offering the perfect blend of features and performance.

StylePro Series

StylePro Flat Panel LCDs combine slim styling and performance at a remarkable value. Enjoy flicker-free, bright and colorful screen images at multiple resolutions using Sony's Automatic Image Adjustments. An adjustable base maximizes desktop space and provides ideal viewing angle for maximum comfort. Upgrade to a Sony LCD today!

DeluxePro Series

DeluxePro Flat Panel LCDs feature bright color detail, superior video performance, and clear stereo sound - the perfect combination of performance and style. Packed with conveniences for the home or office including digital inputs, Automatic Image Adjustments, integrated power supply, smart cabling and special energy-saving ECO mode.

PremierPro Series

PremierPro Flat Panel LCDs deliver superior technology to the professional. Slim bezel combined with digital input, super bright and high contrast LCD panel make this display an ideal choice for financial applications. Wall mount design with built-in power supply and cable management system maximizes desktop space.

Entertainment Series

Driving entertainment beyond the PC, these 16:9 wide screen monitors connect directly to a variety of devices with stereo audio, composite, component, S-Video and PC inputs. They are also HDTV compatible (1080i and 720p) and feature SRS WOW Audio Technology to create a full, wide sound experience with deep, rich bass.

	STYLEPRO SERIES		DELUXEPRO SERIES			PREMIERPRO SERIES		ENTERTAINMENT SERIES	
Model Number	SDM-S71 SDM-S71/B	SDM-S81 SDM-S81/B	SDM-X72 SDM-X72/B	SDM-X82 SDM-X82/B	SDM-X202B	SDM-P82/B	SDM-P232W/B	SDM-V72W	SDM-V72W/B
Viewable Image Size	17.0"	18.0"	17.0"	18.1"	20.1"	18.1"	23.0"	17.1"	17.1"
Dot Pitch	0.264 mm	0.279 mm	0.264 mm	0.280 mm	0.255 mm	0.280mm	0.258 mm	0.291 mm	0.291 mm
Cabinet Color	Two-Tone Grey or Black	Two-Tone Grey or Black	Black & Silver	Black & Silver	Black & Silver	Black & Silver	Black & Silver	Dark Pearl Blue & Metallic Silver or Black	
Audio, Headphone Jack (HPJ)	N/A	N/A	Stereo Speakers, HPJ	Stereo Speakers, HPJ	Stereo Speakers, HPJ	N/A	N/A	Stereo Speakers with SRS WOW, HPJ	
Horizontal Scan 28-61kHz	28-92kHz	28-61kHz	28-92kHz	28-92kHz	28-92kHz	56-85kHz	28-92kHz	28-70kHz	28-70kHz
Vertical Refresh	48-85Hz	48-85Hz	56-85Hz	56-85Hz	48-85Hz	56-85Hz	48-85Hz	48-85Hz	48-85Hz
Response Time (Rise/Fall)	25ms	30ms	30ms	50ms	30ms	50ms	40ms	22ms	22ms
Native Resolution	1280 x 1024	1280 x 1024	1280 x 1024	1280 x 1024	1600 x 1200	1280 x 1024	1920 x 1200	1280 x 768	1280 x 768
Contrast Ratio	400:1	400:1	400:1	400:1	350:1	400:1	350:1	500:1	500:1
Luminance	250 cd/m ²	200 cd/m ²	280 cd/m ²	300 cd/m ²	250 cd/m ²	300 cd/m ²	200 cd/m ²	300 cd/m ²	300 cd/m ²
Viewing Angle	160°/155°	160°/160°	160°/160°	170°/170°	170°/170°	170°/170°	170°/175°	150°/120°	150°/120°
Tilt & Height Adjust	Tilt	Tilt	Tilt & Height	Tilt & Height	Tilt	Tilt	Tilt	Tilt	Tilt
Input Connectors	Analog (HD15)	Analog (HD15)	Digital (DVI-D) and Dual Analog (HD15)	Digital (DVI-D) and Dual Analog (HD15)	Digital (DVI-D) and Dual Analog (HD15), USB Port	Digital (DVI-D) and Dual Analog (HD15)	Digital (DVI-D) and Dual Analog (HD15)	Component S-Video/ Composite, PC (HD15)	Component S-Video/ Composite, PC (HD15)
Color Temperature Control	9300K, 6500K, + user5000K							11500K, 9300K, 6500K	
Max Power/Eco Power	45 W	50 W	40/32 W	58/48 W	78/69 W	58/48 W	78/48 W	49 W	49 W
Internal Power Supply	N/A	N/A	N/A	Yes	Yes	Yes	Yes	N/A	N/A
Dimension (WHD)	16.7x15.7x9.2"	17.3x17.1x8.7"	17.2x16.1x8.9"	17.7x16.7x9.5"	20.5 x18.6x10.1"	17.7x16.7x9.5"	22.3x17.6x9.9"	15.9x18.6x7.2"	15.9x18.6x7.2"
Weight	14.4 lbs.	15.0 lbs.	15.7 lbs.	19.0 lbs.	26.5 lbs.	18.1 lbs.	28.7 lbs.	13 lbs.	13 lbs.
Limited Warranty	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
TCO Compliant	S71 - TCO'99 S71/B - TCO'95	S81 - TCO'99 S81/B - TCO'95	X72 - TCO'99 X72/B - TCO'95	X82 - TCO'99 X82/B - TCO'95	TCO '95	TCO '95	TCO '95	N/A	N/A
Connects to	PC	PC	PC	PC	PC	PC	PC	DVD & VCR Players, Videogame systems, Digital Camcorders & Cameras, HDTV & TV Tuner sources, PCs	

GLYPH TECHNOLOGIES

TRIP2

COMPUTER HARDWARE

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Are you ready for performance beyond your expectations? Whether you're recording, mixing, editing or capturing — no matter the production environment — the Trip2 will reward you with a stress-free storage experience. Since Glyph puts its Oxford 911-based bridge board in the tray with every drive, you are assured that your data integrity and performance will be consistent wherever you take it.



Specifically designed for high-resolution audio, as well as the high-bandwidth requirements of video, Trip2 allocates audio files to multiple drives allowing you to achieve maximum track counts at today's high sample rates. Plus, a single FireWire Hot-Swap Tabletop receiver is included with the Trip2 so you can take your work on the road. Last, the Trip2 is ultra quiet, employing Glyph's QuietMetal which reduces noise from vibration. No matter the audio environment, the Trip2 offers options that go way beyond an off-the-shelf storage system.

FEATURES

- ◆ The multiple ARM processors embedded in each Oxford 911 chip throughout the system (one processor for each drive), provide better than ever control and peak performance that will improve over time.
- ◆ For seamless integration into your studio choose from configurations with six hot-swappable drives, AIT back up, and DVD-RW, or 12 hot-swappable drives for over 2TB. Trip2 makes it easy for you to allocate files and use round robin features of DAWs to achieve 108 tracks of 192 kHz audio.
- ◆ Durable 3RU rack mountable enclosure
- ◆ QuietMetal construction for each drive isolates vibration eliminating external noise and enables ultra-quiet operation for your studio environment.
- ◆ Silent operation is enhanced by automatic thermal-sensing cooling to limit fan noise, prolong the life of your system, and protect your work.
- ◆ High performance 7200 RPM hard drives available in 40, 60 or 120GB capacities.
- ◆ Glyph S.M.A.R.T Manager Software to monitor your system and protect your data with predictive failure analysis to warn you of issues with your storage subsystem before it's too late

True FireWire Hot-Swappable Hard Drive Technology

- ◆ You can move projects from one room to another; you can track directly to it, or use a different drive for each client's work. You can send a drive home with a customer, or use one drive to back up the data on another one. The possibilities are endless with this receiver and tray design.
- ◆ What sets this system apart from all other "Hot-Swap FireWire" products is that the Glyph hot-swap interface operates according to the IEEE 1394 standard. The bridge board is built into the drive/tray. One of the benefits of FireWire is hot-swappability, which means you remove or insert the tray at the FireWire interface level.
- ◆ Removing a hot swap drive interrupts the data signal at the FireWire bus rather than on the ATA bus as with other hot swap systems, thus ensuring data integrity and consistency. Glyph's FireWire interconnectivity backplane assures you the best interface to maintain the integrity of your data.

netDrives



The netDrive FireWire hard drive is a value-priced, sleek portable storage solution for demanding environments. They deliver high performance with a dual port, standard 6-pin FireWire and USB 2.0 interface. Designed in

a small, light package, it allows you to move your data files quickly, reliably and easily.

- ◆ Up to 180GB (FireWire-only models) or 120GB (FireWire/USB combo models).
- ◆ 7,200 rpm, ATA/100 drives with a 2MB cache and Oxford 911 chip for smooth, consistent data transfer.
- ◆ Small, durable, polycarbonate case runs quietly, is portable and easy to use anywhere.



EQUIPMENT LEASING AVAILABLE

GLYPH TECHNOLOGIES

TRIP2 TABLETOP

Hot-Swap Fire Wire Tabletop Receiver

With the Trip2 Tabletop, you can move projects from one room to another; can track directly to it, or use a different drive for each client's work. You can send a drive home with a customer, or use one drive to back up the data on another one. The possibilities are endless with this receiver and tray design. The Trip2 Tabletop accepts the same Glyph drive/tray technology as the Trip2. It includes a built-in power supply and standard dual 6-pin powered FireWire interface.

Imagine being able to record in the studio, pull the FireWire drive and take it home to mix the record there.

- ◆ Now Glyph's latest high-tech hotswap and bridging technology, first introduced in the 3U-rack Trip2 is available in the smaller, portable form factor of a tabletop drive
- ◆ What sets this system apart from all other "Hot-Swap FireWire" products is that the Glyph hot-swap interface operates according to the IEEE-1394a FireWire standard.
- ◆ The bridge board is built into the drive/tray. One of the benefits of FireWire is hot swap-ability, which means you remove or insert the tray at the FireWire interface level.



GLYPH QUIETMETAL (THE SANDWICH OF SILENCE)

When you're recording in the studio, any piece of gear that makes background noise is going to get in the way of your session. That's why some people try to silence their gear by putting noisy hard drive units in "isolation boxes" to muffle the noise of the drives and fans spinning. Unfortunately, "iso" boxes suffer from heat buildup. Even in the best boxes, it's nearly impossible to get total acoustic isolation and also get the heat out of the hard drive that's in the box.

Most of the noise in a hard drive system comes from the hard drive itself, and the fans used to circulate air through the enclosure. Noise is vibration, and it is the vibration of the hard drives and fans that is so objectionable in an audio recording studio.

So Glyph studied the situation, and decided to block the vibration of the hard drive and fan from getting to the chassis, where it could make its way into the studio. The clear place to do this was in the mounting hardware that holds the drives and fans within the chassis.

QuietMetal Tri-Laminate

Glyph took advantage of advanced composite metals technology, and incorporated a tri-laminate — two layers of metal skin, separated (and bonded) by a viscoelastic polymer core — into their systems to dampen vibration and control noise. The tri-laminate metal actually absorbs vibration before it can get to the unit chassis. Extensive research and testing demonstrated that careful application of QuietMetal would dramatically cut the noise level produced by the hard drives and fans.

Glyph uses QuietMetal for the internal drive frames and rear fan panels, making their products the quietest high-performance storage systems available today. The combination of viscoelastic damping and secure fastenings, along with our use of the latest in quiet drive mechanisms, virtually eliminates vibrational noise. This translates into a storage solution that is significantly quieter than the rest of the gear in your studio — which means your recording is quieter, too.

FIREWIRE FIXED-DRIVE TABLETOP



The FireWire Fixed-Drive Tabletop is the ultimate solution for your project and mobile studio. It includes a built-in power supply and a standard dual 6-pin powered FireWire interface, and it's built in a sturdy steel case. It features the latest technological advancements from Glyph, including QuietMetal to eliminate noise, and exclusive FireWire bridging technology. This high performance hard drive system

is available in capacities up to 180GB so you can record, mix and edit multi-track audio. It will even handle high definition sample rates, and includes Glyph Audio Storage Toolkit formatting and partitioning software.

GLYPH TECHNOLOGIES

SCSI TRIP FAMILY

COMPUTER HARDWARE

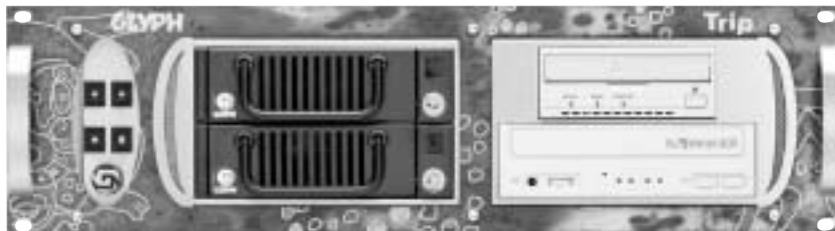
880

SCSI Drives

When you need a full solution in a single enclosure Glyph has the best Trip for you. The industry-standard, thousands of today's most successful audio and video projects were created with a Trip. They offer "Monster Truck" storage with removable technology and your choice of standard

configurations. Power switch and SCSI ID selection switches are conveniently available on the front of the units and all Trip configurations include the necessary cables and termination.

SCSI provides significantly faster data transfer than Firewire and allows for the connection of up to 15 peripheral devices. The high speed and reliability of SCSI has made it the standard interface in audio and video production.



Ego Trip

The name says it all... For the professional who wants the biggest and the best. Two hot-swappable high-capacity 10,000 or 15,000 RPM hard disk drives for recording, mixing and editing. Also comes equipped with AIT-3 100GB native tape backup and 48X CD-R/RW with Glyph's own Firewire interface technology.

Project Trip

The Trip for the budget-conscious. Includes an AIT-1 35GB Tape Backup, two 18GB hot-swappable 10,000 RPM hard disk drives and a 48X CD-R/RW with Glyph's own Firewire interface technology.

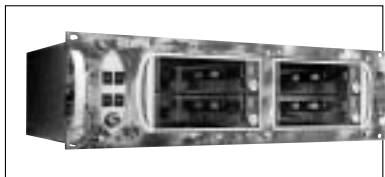
Power Trip

Ideal for high-speed and high-capacity backup. Equipped with a 50GB AIT-2, two 73GB hot-swappable 10,000 RPM hard drives, and a 48X CD-R/RW with Glyph's own Firewire interface technology.

Studio Trip

For efficient management of critical projects, the Studio Trip includes an AIT-1 35GB Tape Backup, two 36GB Removable Cheetahs and a Plector 48X CD-R/RW.

Naked Trip



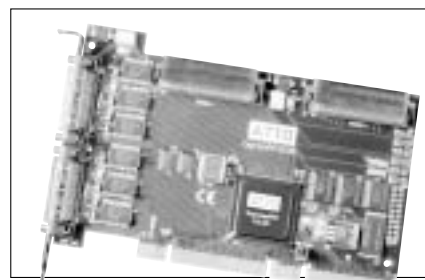
This rack-mount enclosure is the ultimate in scalability, with 4 open hot-swap receivers available for drives in trays.

We can configure with Naked Trip with Narrow, Ultra Wide or Ultra 160 receivers, it's your choice.

Note: Naked Enclosures do not include cables or terminators, that's why they're called "Naked".

Host Bus Adapters

Host bus adapters, or HBAs, are necessary when connecting a peripheral to a computer that doesn't have native support for that peripheral's interface. Glyph offers HBAs from ATTO and Adaptec Technology to support all major operating systems, with various connection interfaces and speeds.



ATTO ExpressPCI UL3D: Dual-channel Ultra3 SCSI Host Adapter.....**Call**

ATTO ExpressPCI UL3S: Single-channel Ultra3 SCSI Host Adapter.....**Call**

Adaptec FireConnect 4300:

3-port, 400 Mbit/sec FireWire/1394 host adapter for PCs and Macs**Call**

AUDIO STORAGE GUIDE

In multi-track audio there are generally numerous data files for each track, especially with punch-ins and edits. The rotational speed of the platters directly affects the number of audio tracks you can achieve because of the time taken for the drive to find and process the various files. Files are written to the different sectors across the platter, over the course of your project these files become non-contiguous, resulting in drive fragmentation. The heads move back and forth across the platters to write and read the scattered data. Because of the time it takes for the data to pass underneath the heads, drives with slower spindle speeds like 7,200 RPM take longer to access each file than drives with speeds of 10,000 and 15,000 RPM. Audio applications are very demanding on drives since small delays in the delivery of requested files results in playback errors. Faster speeds yield extra audio tracks with more edits. This is also why that bargain price 5,400 RPM drive is useless for your DAW.

GLYPH TECHNOLOGIES

DOUBLE SPACE RACK ENCLOSURE

Double Space (2RU) Rack Mountable Systems

These are classics. Totally customizable, you can have any two devices configured however you need them. Whether you need dual hot-swappable hard drives, a single hard drive with a tape back up device, or even a single tape back up device with a media storage bay, this is the multi-functional, rack space saving classic.



Drives: Glyph-optimized for digital audio and video. Available capacities of 18GB, 36GB, 73GB, 146GB

Spindle Speeds: 7,200 rpm, 10,000 rpm, 15,000 rpm

• **Interfaces:** SCSI 3, Ultra160

• **Compatibility:** Macs and PCs with appropriate host bus adapter cards for your applications.

SCSI Tabletops

The total package of reliability and performance



Simply put, Glyph's stackable Tabletops deliver big with 10,000 RPM super fast drives that are perfect for hard disk audio recording. Glyph's stylish enclosures are as innovative as they are unusual. Built specifically for use in audio environments, they offer quiet fans, well-insulated drive housings and beefy power supplies to keep your SCSI drive spinning for years to come. Not only do you get reliable operation and loads of space for your precious data, but you also get one of the best names in the business standing behind your recording media.

All of Glyph's Tabletop SCSI hard drives are pre-tested and formatted, and include a high-quality 3' SCSI cable, active terminator and a power cable.

WILDFIRE

Fast, Reliable Fire Wire 40x CD Recorder

The WildFire is the ultimate portable, easy-to-use, rewritable CD recorder. Its speed and reliability make it an excellent addition to any studio. WildFire has the features you need to fully master your CDs. It has Disc-At-Once (DAO)

technology and a 4MB buffer for smooth transfer of your audio files, and it's Red Book Audio compliant. This FireWire CD-R/RW ships with cable, Mac/PC software and media so you can start burning right away.



- ◆ A fast, reliable 3-in-1 CDR/W drive, it writes at 40x, re-writes at 12x, and reads at 40x
- ◆ Use as alternative to SCSI for a clean configuration; free up SCSI bus for other devices
- ◆ WildFire is a great alternative to a SCSI CD-R/RW. Because it's FireWire, it's simple to use and won't require a PCI card which uses up a PCI slot. FireWire's hot-pluggable dynamic reconfiguration means that you can re-cable your peripheral devices without re-booting.
- ◆ Utilizes the Oxford 911 bridging chip which is optimized for CD-R(RW) applications
- ◆ Disc At Once (DAO), Red Book Audio compliant so you can fully master your CDs
- ◆ 4 MB buffer assures smooth transfer of your audio data
- ◆ Burn-Proof technology eliminates buffer underrun errors in fast write modes, allows for multi-tasking
- ◆ Flash ROM allows for easy upgrade over the Internet
- ◆ Compatible with Macintosh & PCs (your PC may require a host bus adapter and software)
- ◆ Comes complete with Toast, FireWire cable, and CD media accessory pack

GLYPH TECHNOLOGIES

AIT DRIVES

High-performance Tape Back-up

As robust as today's hard drives may be they are still mechanical devices that will stop working one day. In addition, with the advent of 96kHz and higher sampling rates, audio files are larger than ever, which means we need more and more storage space. With this in mind, high capacity, reliable backup solutions are even more critical than ever. Tape is a natural backup method because of its long shelf life and durability. It also provides greater transfer speeds than previous methods while constantly offering higher storage capacities. Glyph offers AIT drives in FireWire and SCSI, tabletop and rack-mountable. The AIT line is available in capacities of 35GB, 50GB and 100GB per tape, utilizing AIT-1, AIT-2 and AIT-3 respectively. The AIT format was developed to handle large capacity requirements for data-intensive applications, and works exceptionally well for digital audio and video. It employs a helical scan recording style in which data tracks are written at an angle relative to the edge of the tape. This provides higher density recording, giving you lower media costs and increased efficiency by storing more data on a smaller amount of tape.



Why Backup?

Backing up and archiving your data is easy and extremely important. When you consider how much time you put into your work, and how large your files can be, regular preventative system maintenance is much less painful than re-creating a session or project. In digital audio and video production, you rely on your system to the point that data loss can be devastating. No matter how well you treat your system, you cannot guarantee your data will be safe if it exists in only one place.

A backup is a copy of your data in a separate place from the original, such as a hard drive, tape, DVD or CD. Many people backup their work to tape at the end of the session or on session breaks. Programs, such as Retrospect or Mezzo, allow you to keep track of what has been backed up, and what hasn't. At a glance you can see when the last backup occurred, and what files were copied. As you continue to record, edit or add new files to your working drive, continue to back up that data by running the backup program again.

You may also consider backing up your data on hot swappable hard drives. The working drive and backup drive can be the same capacity, making it easy to keep your files organized on both drives. Some people use the Trip2 as both working drives and backup drives. Record your 64 tracks of 96K 24bit audio to three drives at a time, then backup to the other three at the end of the session.

Tape is often used for longer term backup because it is more likely to survive an accidental drop than a hard drive. Recovering data from a hard drive is not easy, and is expensive.

Optical media may be the most robust for the long term archiving. Optical media, like CD or DVD, provides you more cost-effective options for restoring your data.

Like tape, hard disk drives are magnetic devices. Just as tape can exhibit dropouts or degaussing, a hard drive can crash or have bad sectors and irreplaceable data can be lost forever, unless it has been backed up. The best practice is to regularly back up your projects to tape, and over long periods of time archive your data with optical media such as DVD. Optical media offers a longer shelf life than tape and is usually easier to store on your shelves.

Glyph provides fast, large capacity backup and archiving systems with the option of a FireWire or SCSI interface. SCSI AIT3 offers capacities up to 100GB native, and the FireWire AIT1 and AIT2 tape back up is reliable and extremely easy to use.

AIT SPECIFICATIONS

AIT-1

- ◆ 35GB per tape
- ◆ Available in SCSI and FireWire
- ◆ 240MB/min sustained transfer rate
- ◆ SCSI version compatible with Retrospect and Mezzo
- ◆ FireWire version compatible with Retrospect

AIT-2

- ◆ 50GB per tape
- ◆ Available in SCSI and FireWire
- ◆ 360MB/min sustained transfer rate
- ◆ SCSI version compatible with Retrospect and Mezzo
- ◆ FireWire version compatible with Retrospect

AIT-3

- ◆ 100GB per tape
- ◆ Available in SCSI
- ◆ 720MB/min sustained transfer rate
- ◆ Compatible with Retrospect and Mezzo



ADS / MEDEA

PYRO DV RaidRT



PYRO DV RaidRT is hardware-based FireWire RAID array enclosure designed for DV content designers who edit, create and store large mission-critical video projects. It provides more reliable storage and faster speeds than a single hard drive alone.

PYRO DV RaidRT is a four-bay RAID enclosure that accommodates Ultra ATA 100 hard drives. These drives are converted to FireWire/IEEE 1394 using internal dual channel RAID controllers. PYRO DV RaidRT utilizes an Intel i960 RM RISC Microprocessor and also includes 64 MB SDRAM for cache memory. Once drives are installed, it supports RAID level 0, 1, 0+1, 3 or 5. Installed drives are hot swappable and one drive can also be used as a hot spare.

- ◆ Capture 48 Tracks of 24 BIT Audio
- ◆ Add your own IDE Hard Drives or ANY Size
- ◆ Fully Integrated HARDWARE RAID, No Software to Install
- ◆ Stripe Hard Drives for RAID 0, 0+1, 3 or RAID 5
- ◆ 4 Removable Hard Drives, Hot Swappable
- ◆ Serial communication port enables array controller operation via PC VT terminal controller

COMPUTER HARDWARE

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MEDEA AudioRack LP

***Low Profile Rack Mountable
Storage Systems for Digital Audio Workstations***

*AudioRack LP
(Low-Profile)
storage systems
from Medea
are designed to
support profes-*



sional digital audio workstations (DAWs) at a fraction of the cost of competing audio storage systems. AudioRack LP supports high track count sessions in a compact 1U rack mount enclosure.

- ◆ Packs up to 300GB of high-performance audio storage in a single 1U enclosure that requires only 1.75-inches of rack space. Stack three AudioRack LPs, and over 1TB (1000 GB) of storage can be configured in only 7 inches.
- ◆ The 2-drive versions of AudioRack LP support the simultaneous playback of up to 24-tracks of audio. The 4-drive versions support 64-track sessions of 24-bit/96kHz audio and are the ideal storage solution for professional DAWs including Nuendo, Pro Tools and Tascam MX-2424.
- ◆ AudioRack LP is optimized with Medea's proprietary AST (Audio Stripe Technology) to support 64-track sessions in a single SCSI ID.
- ◆ AST enables independent seeks to the disk drives in AudioRack LP and dynamically distributes audio tracks evenly among the drives. The bottom line is that you can simply record/playback up to 64-tracks to/from a single AudioRack LP and eliminate forever the need to manually manage your audio media by juggling between multiple storage devices.
- ◆ AudioRack LP attaches to any DAW equipped with a SCSI host adapter. Simply attach and initialize the system as if it was a single disk drive.
- ◆ As your audio storage requirements grow, AudioRack LP systems can be daisy-chained together for storage capacities up to 4.5 TB (4500 GB)—over 65 hours of 64-track, 24-bit/96kHz sessions.
- ◆ AudioRack LP is ultra-quiet and won't interfere with your productions.
- ◆ Backed by a 5-year factory warranty

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PORTABLE HARD DRIVES

Data Bank

Design by F.A Porsche, the Data Bank is the most compact hard disk ever. Weighing less than 5 oz. the Data Bank is barely larger than a credit card and thinner than a mobile phone 4.4 x 2.5 x 0.5"). A masterpiece of understated elegance, the Data Bank offers 20GB of storage at fast FireWire and USB 2.0 speeds, in a sleek, ingot-shaped magnesium design.



- ◆ Hot-pluggable to easily share among cross-platform desktops, it features one FireWire and one USB 2.0 port
- ◆ USB 2.0 standard boasts transfer rates of up to 480Mbps while still maintaining backward compatibility with USB 1.1 devices. The blazing FireWire interface delivers transfer rates of up to 400Mbps.
- ◆ Offers true plug and play connectivity, without the need for driver or software installation for Windows XP and Mac OS X users.
- ◆ No power supply needed. Simply connect the drive to your computer and use the power supplied by the FireWire or USB cable.

PocketDrive

Designed for today's traveller, the LaCie PocketDrive family offers an ideal solution for data exchange, backup and archiving on the road. Slender and compact, the drives are easy to carry and feature a silicon bumper for maximum shock protection. The PocketDrive U&I provides both USB 2.0 and Firewire (IEEE1394) interfaces in one drive. With two Firewire ports and one USB port, you can connect and disconnect any of the PocketDrives while the computer is running with immediate device recognition.



- ◆ PocketDrives weigh just 12½ ounces, yet they can easily store heavy graphic, audio and video files, and perform complete backups of most systems.
- ◆ PC and Mac compatible, the PocketDrive comes complete with USB 2.0 and FireWire cables, AC power adapter, and LaCie's Silverlining Pro drive management software.
- ◆ For those who don't require Firewire, the PocketDrive USB 2.0 delivers all the features and performance of the PocketDrive U&I, except Firewire connectivity. This streamlined version allows a more aggressive value without compromising performance.

Mobile Drive

The perfect companion for desktop and notebook computers, the LaCie Mobile Drive delivers up to 40GB storage capacity in a package that fits in your pocket. With a rugged aluminum design to reliably protect your data, and an ultra-thin, portable design to provide complete mobility, the Mobile Drive allows you to move freely and take your data with you wherever you go.



- ◆ Plug and play with USB 2.0 interface, this lightweight, portable drive boasts transfer rates of up to 480Mbps/sec. — forty times faster than the previous version — while maintaining convenient backward compatibility with USB 1.1 devices
- ◆ Uses the power supplied by the USB bus—so no AC power adapter needed—making it even easier to work when traveling.

D2 HARD DRIVES

Mobile & Desktop Hard Drives

LaCie's D2 series mobile and desktop hard drives are available in a variety of interfaces for easy connection to Macs and PCs.

While USB is best-suited for personal backup and data sharing, Wide SCSI and Firewire are ideal for use with high-bandwidth applications, such as video and audio editing. (USB & Firewire drives are Mac OS X and Windows XP compatible).

- ◆ The D2 drives feature a sturdy aluminum case designed to enhance portability, durability, and appearance. Made of a metal alloy that dissipates heat and prolongs drive performance, the drives feature a slender, stylish case that allows you to arrange them vertically on the desktop, horizontally stacked in a desk rack, or mounted in 19" racks.
- ◆ Available with up to 500GB of storage, a 250GB D2 drive can store the equivalent of a 385 CD-Juke-Box or 50,000 MP3 songs.



- ◆ Fan-free design ensures quiet operation
- ◆ The drives are hot-pluggable, allowing for connecting and disconnecting while the computer is running. They are also compatible with Mac and Windows enabling simple cross-platform data sharing and exchange among workstations.

D2 USB 2.0 & FIREWIRE 800 HARD DRIVE

- ◆ Equipped with the Firewire 800 standard—the fastest-ever, this drive is capable of reaching transfer speeds of up to 800Mbps/s for Firewire 800 users and up to 480 Mbps/s for USB 2.0 users. The d2's dual interface, 7200 rpm speed and 8MB buffer make it the fastest-possible storage solution for digital content creators.
- ◆ With the appropriate cable, the drives can be connected to any computer equipped with FireWire 800 (9-pin), FireWire 400 (6-pin), USB 2.0 or USB 1.1 ports, making it the most universal drive ever.
- ◆ Chained and striped in a FireWire 800 RAID 0 configuration, can reach unprecedented sustained transfer rates of up to 100MB/s, making them ideal for workstation and small-server environments.

D2 FIREWIRE HARD DRIVE

- ◆ Drives are hot-pluggable, allowing for connecting and disconnecting while the computer is running
- ◆ Up to 250GB of additional storage
- ◆ Transfer rates of up to 400Mbps/sec
- ◆ Automatic plug and play configuration for Mac and PC

D2 USB 2.0 HARD DRIVE

- ◆ Spacious storage capacity: up to 200GB of additional storage
- ◆ USB 2.0 delivers transfer rates of up to 480Mbps/sec
- ◆ Automatic plug and play configuration for Mac and PC

D2 ULTRA320 SCSI HARD DRIVE

- ◆ Fastest SCSI transfer rate: up to 320MB/sec
- ◆ Ultimate performance: up to 68MB/s sustained rate per drive
- ◆ Use with RAID 0/1 arrays, audio, high-speed servers and workstations
- ◆ Backwards compatible with Ultra160, Ultra2 and UltraWide SCSI interfaces. It can even be chained with previous-generation SCSI drives without causing speed limitations.

D2 ACCESSORIES



LaCie Desk Rack

Conveniently stack up to four D2 drives in this separate rack and save valuable space on your desk. When holding three drives or less, this sturdy desk rack features an area to neatly store media such as CDs and DVDs**49.00**

LaCie Security Lock

Also available for use with the D2 design is a Kensington-type lock to which protect your equipment from theft or damage. This security lock can be quickly and easily installed and features a durable steel cable**19.00**



LaCie Rackmount Kit

Configure your LaCie D2 drives in standard 19" racks with this optional rack-mounting kit. This kit allows for greater

organization of storage peripherals and tidy consolidation of hardware. Kit includes two aluminum brackets and one aluminum junction piece.....**39.00**

Included LaCie Drive Stand

LaCie D2 drives ship with a sturdy metal drive stand that provides stability and enables upright desktop use. When positioned vertically, these slender drives occupy less surface area for more efficient use of desktop space.

d2 CD-RW DRIVE

High-Speed, Portable Firewire or USB CD-RW Drives

Quickly creating data, audio, photo and multi-media CDs has never been easier. Enclosed in a lightweight but sturdy aluminum case for complete mobility (AC powered) and reliability, the d2 FireWire or USB-equipped CD-RW drives allow you to quickly and easily record, write and play CDs. Use them to master your own music CDs, or store and archive your important data. They come complete with LaCie CD Utilities including recording software for pre-mastering, digital audio/video archival and storage, and creating backup copies.

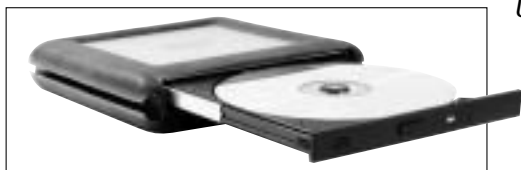
- ◆ Ships with recording software, so you'll be able to start burning immediately. The LaCie CD Utilities includes all of the necessary drivers and Toast for the Mac and Easy CD Creator for the PC, allowing you to create custom audio CDs and store files.
- ◆ A "plug and play" peripheral, the LaCie CD-RW Drive easily configures to Macs running OS 9.x and 10.x, as well as Windows 98SE, Me, 2000 and XP. No need for device IDs or terminators.
- ◆ Hot-pluggable FireWire technology lets you connect and disconnect your drive without shutting down your computer.
- ◆ Stackable desktop or rackmount design (optional rackmount kit and desktop rack)



POCKETCD-RW DRIVES

Super-Compact, Portable Firewire or USB CD-RW Drives

Designed for today's traveller, the LaCie's portable, lightweight USB or Firewire-equipped PocketCD-RW Drives are engineered with rugged durability, and designed to enable fast CD recording anywhere, anytime.



Use it to back up your projects while on the road, share information with clients, or shuttle data between home and the office. To guard against the bumps and jolts that come with life on the go, the PocketCD-RW is surrounded by a shock-resistant bumper for reliable data protection.



They Both Feature:

- ◆ True plug and play convenience—no driver or software installation required
- ◆ Store large audio and video files, as well as perform complete backup of most systems.
- ◆ Ideal match for Macintosh PowerBook or iBook computers equipped with iTunes, the drives enable simple data sharing among Macintosh workstations.
- ◆ Weighing only 25 ounces, the PocketCD-RW Drive is designed for travel. In addition there is no external power supply to carry and no AC adapter required.
- ◆ To guard against the bumps and jolts that come with life on the go, they are surrounded by a shock-resistant bumper for reliable data protection.
- ◆ Burn digital video and data files in less than four minutes for fast archival, backup and data exchange. Use iTunes to quickly compile audio and MP3 CDs.
- ◆ Featuring advanced FireWire or USB 2.0 technology, the drives can be connected and disconnected while the computer is running with immediate device recognition.

Firewire Version

- ◆ Offers extremely fast, reliable performance for users working with digital audio and video. The Firewire PocketCD-RW conveniently utilizes the Firewire cable for both power and data transfer—no external power supply needed.

USB 2.0 Version

- ◆ Equipped with the USB 2.0 interface, the USB PocketCD-RW drive delivers transfer rates of up to 480Mbps/sec. while conveniently maintaining backward compatibility with USB 1.1 devices.

d2 DVD-RW

USB 2.0/Firewire DVD Rewritable Drive

Encased in Lacie's d2 design, this DVD rewritable drive features Firewire and USB 2.0 connections and can be positioned horizontally on the desktop, stacked in a separate desk rack, or mounted in standard racks with the optional rackmount kit.



- ◆ Record digital audio, video and data or backup valuable data. Read/write to CD and DVD media. Utilize Easy CD Creator and Toast to make audio and MP3 compilations, create and playback your DVDs.
- ◆ Fully hot-pluggable, simply connect the drive and start creating. Drives can be shared between workstations for cost savings.
- ◆ Assess the needs of your project and then choose the type of media best suited to your needs. Offering the ability to write to DVD-R/RW and CD-R/RW media, allows for true project control.

DVD MultiDrive

DVD-RAM, DVD-R, DVD-RW, CD-R, CD-RW All-in-one-Recorder

Record, archive and share digital content on durable, reliable CD and DVD media with DVD MultiDrives. Equipped with blazing write speeds, these drives



allows you to record data, video and MP3s on DVD general use discs, and archive songs, MPEG-2 DVD video or documents. Large-capacity, double-sided media allows for up to 9.4GB of reliable storage space.

- ◆ DVD-RAM functionality provides random-access capabilities, similar to a hard drive, allowing for almost instant retrieval of specific files: an excellent solution for backup and fast data recovery.
- ◆ Edit and author video, store digital photos and music files, and archive large amounts of data. The MultiDrive is capable of reading most CD and DVD formats, and is backward compatible with previous generations of DVD-RAM media.
- ◆ Bundled with recording software for Mac and Windows including DVD-RAM Utilities, Sonic MyDVD Video Suite for video capture, editing and authoring, Roxio Toast Lite and Easy CD Creator Basic for CD and DVD recording, MusicMatch Jukebox Basic for audio CD compilation, and InterVideo WinDVD for DVD playback.

DVD INTERNAL RECORDER

Internal E-IDE/ATAPI High-Speed DVD Burner

Edit and author professional, interactive video DVDs, store music files and archive digital photos — all on reliable DVD media. Record data,



video and MP3s on DVD general use discs and store up to 4.7GB of data — up to 1,000 songs, more than two hours of MPEG-2 DVD video, or as many as 500,000 documents.

- ◆ Store up to 1,000 MP3 files on a single DVD disc
- ◆ Buffer under run protection reduces failed burns
- ◆ Bundled software incorporates easy-to-use interfaces and a range of professional-grade tools, allowing you to create superior, high-quality DVDs to be used for storage, backup or playback
- ◆ Ideal for storage and backup of audio, video and data in consumer and corporate environments.

POCKETDVD-RW

Mobile DVD Recording

This lightweight, mobile DVD-RW drive offers enough capacity to store large graphic, audio and video files, as well as perform complete backup of most systems on reliable



DVD media. An ideal companion for Apple Power Mac computers and PowerBook laptop computers, LaCie's PocketDVD-RW Drive delivers a complete, lightweight DVD recording and authoring solution.

- ◆ Record digital video, MP3s and data files on DVD general use discs. Offering generous storage capacity of up to 4.7GB, DVD general use discs are capable of storing as many as 1,000 MP3 songs, up to two hours of MPEG-2 DVD video, thousands of digital still images, and as many as 500,000 documents.
- ◆ Ships with full-featured DVD authoring software, as well as CD and DVD recording software for Mac. A wealth of professional-quality tools to burn audio or author exciting video DVDs.
- ◆ FireWire powered, the PocketDVD-RW Drive can be connected and disconnected while the computer is running with immediate device recognition. An external power supply is not needed.

PINNACLE SYSTEMS

COMPUTER HARDWARE

888

INSTANT COPY

Perfect CD and DVD Duplication for Music



Making copies of your DVDs and CDs for personal use has never been faster or easier. Featuring a friendly interface and revolutionary duplication technology (advanced buffer underrun protection, predefined burning profiles, sophisticated read-error handling), Instant Copy burns

perfect copies every time— and at unbeatable speeds!

Burn true 1:1 copies of DVD content, transfer DVD content to Video CD's and make perfect bit-for-bit copies on any CD media. (Doesn't copy CSS-encrypted discs.)

- ◆ Burn a 9 GB, dual layer DVD video onto a standard 4.7 GB recordable disc
- ◆ Transfer DVD content to VCDs and SVCDs that can be played on most DVD players
- ◆ Create perfect bit-for-bit copies of any CD media: audio, data, video and music

CLEAN & CLEAN PLUS

All-in-One Audio Restoration



The perfect digital tool for archiving and preserving your old vinyl LPs, cassettes, and analog media, CLEAN allows you to record your favorite albums, and automatically apply a number of effects and filters to remove all of the artifacts of age. Hiss. Crackle. Scratches. Pops. These are the enemy. CLEAN uses advanced audio restoration technologies to scour your recordings and deliver results as crystal clear as the original recordings. CLEAN PLUS adds a

specialized pre-amplifier to help you get the highest quality into your PC.

- ◆ Removes clicks, pops and background noise from any recording
- ◆ Fully automatic process for great results, quickly and easily
- ◆ Unique processing presets for LPs, tape and MP3 based music
- ◆ Includes CD burning software for easy cataloging on disc
- ◆ Complete parameter control over restoration process

myMP3PRO MP3 Jukebox Software

The ultimate tool for cataloging and controlling your music, myMP3PRO combines high quality MP3 and MP3 Pro encoding with professional level audio editing, mixing, special effects and CD burning capabilities to deliver incredible control over your music library. Capture and store all of your favorite music into custom playlists, add custom EQ processing and other cool effects, then save your mixes to CD, or interface with your portable MP3 player for complete flexibility.

- ◆ myMP3PRO delivers everything you need for an amazing audio experience. Encode, edit, mix, alter, reorder and transfer your music. Then upload directly to your hardware MP3 Player, or DJ your own mixes live! Total MP3PRO support gives you the best compression without sacrificing sound clarity. Virtual effect slots allow for incredible sound processing, and integrated Surround-Sound gives you complete control over your music.
- ◆ myMP3PRO includes many features found only in high-end audio editing suites. Sophisticated EQ capabilities allow you to create custom playlists specifically for different speaker or headphone setups. Professional waveform editing tools allow you to adjust volume, phase, panning, dynamics and more!
- ◆ Packed with features to give you complete command of your audio library. Listen to, organize, burn and convert MP3 files. Fade in, fade out, crossfade, and normalize your tracks. Add audio effects in real time, or even create your own CD labels and covers with the built-in Label Editor. Whether you want to take your favorite music on the road with your MP3 player, or DJ your own parties, there's nothing like myMP3PRO for making and mixing MP3s!



EQUIPMENT LEASING AVAILABLE

TOAST 5 TITANIUM

CD and DVD-Recording Software for Mac

Toast 5 Titanium is a comprehensive, all-in-one DVD and CD burner software that enables you to create, organize, share and store all of your digital content (music, data, photos, and video) on CDs or DVDs. Turn scratchy LPs and cassettes into crystal clear CDs. Convert MP3s into professional audio CDs or burn them on MP3 discs that hold hours of music. Print custom labels and cases for your new CDs. The perfect companion to iMovie, iTunes, and DVD authoring software—Toast 5 Titanium burns fast, burns clean, burns on more drives, and burns in the background too.



- ◆ Automatically converts any QuickTime audio file to CD audio format, including WAV, MP3, and even audio tracks from QuickTime movies.
- ◆ Vary the gap time between songs, with a different pause between each song. You can also create MP3 CDs that hold hours of music.
- ◆ Design and print expressive CD labels and jewel case inserts with Magic Mouse Discus.
- ◆ Included Panic's Audion lets you organize, edit and get the most out of your music collection. Play your MP3 files with rich visualizations, organize them into playlists, or edit them using waveforms to turn your MP3s into personalized compositions.
- ◆ CD Spin Doctor turns scratchy records or cassette tapes into high fidelity CDs:
 - Records from any analog source (phonograph, tape, or microphone)
 - Eliminate noise, pops, hisses, and clicks
 - Enhancement filters convert mono to stereo and boost Bass or Treble
 - Wave form display with zoom in/out

Toast With Jam

Toast with Jam is the ultimate studio tool for arranging and mastering pro audio CDs on Mac OS X. In addition to the full CD and DVD burning



power of Toast, this suite adds the award-winning BIAS Peak LE and Roxio's Jam 5.

Jam 5: Arrange your tracks and build your 100% Red Book-compliant audio CD. Create dynamic crossfades between tracks, edit PQ subcodes, set the gain for each channel of each track, cleanly trim your tracks, and more.

BIAS Peak LE VST: Use lighting-fast, nondestructive waveform editing tools to improve and add special effects to your music. Enhance vocals with concert reverb, soften dynamic peaks and create other effects with included VST plug-ins.

Easy CD & DVD Creator 6

A complete digital media suite, you can rip, play, edit, organize and burn your digital music with AudioCentral. Make DVD movies with professional transitions and animated menus with DVD Builder. Create personalized disc labels with Label Creator. Save large data projects to multiple discs with Creator Classic or copy personal discs with Disc Copier.



- ◆ AudioCentral software includes a player, media manager, ripper, tag and sound editor - integrated in a single application. Create greatest hits CDs, preserve your old LPs and cassettes in digital format, enhance your tracks with sound effects and more.
- ◆ Drag and drop files for burning to CD or DVD. Disc formatting and burning will happen automatically.
- ◆ Back up, share or archive your important files to CD or DVD, or large projects to multiple discs. Easily retrieve files or projects back to the original or new location on my Windows PC with Roxio Retrieve.
- ◆ Roxio Label Creator lets you make personalized CD labels, jewel case inserts and DVD case covers. Choose from dozens of professional designs for all occasions!

