Digital X Bus
Model X.200
Frequently-Asked Questions

SECTION I: Routing and Interfacing

Q.   How many inputs and outputs does the X.200 have?

A.   The X.200 offers 64 simultaneous inputs and outputs accessed from a variety of eight-channel analog or digital I/O cards. In addition, dual two-track digital returns are located on the included Mix Out Card, as well as 12 outputs for monitoring, phones, and mixdowns.

Q.   Does the X.200 support 96 kHz operation?

A.   Yes, for up to 68 inputs and 76 outputs, and supporting up to 64 channels of DSP. The X.200 can also support up to 50% of that capacity when operating at 192 kHz sampling rate. Each I/O Option Card for the X.200 is wired to support up to 192 kHz operation.

Q.   What option cards are available for the X.200?

A.   We currently manufacture and sell all the following option cards for the Digital X Bus Model X.200 (and X.400):

- **Mic/Line 4:** Four XLR microphone inputs and four balanced line-level inputs; +48V phantom power for each mic input; digitally-controlled trim controls

- **Mic/Line 8:** Eight mic/line inputs and eight balanced line-level outputs via two DB-25 connectors; +48V phantom power for each mic input; digitally-controlled trim controls

- **Line Card:** Eight balanced line-level inputs and outputs via two DB-25 connectors; +4 dBu / –10 dBv input level reference jumpers on card

- **Digital Card:** Eight channels of ADAT™ optical or Tascam® T-DIF formatted digital audio inputs and outputs; ADAT ports support S/MUX operation for 96 kHz sampling rate

- **AES Card:** Eight channels of AES/EBU formatted digital audio inputs and outputs via one DB-25 connector; supports single-wire operation for 96 kHz (eight channels) or 192 kHz (four channels)

- **FireWire Card:** Direct digital audio streaming interface between the Digital X Bus and your Mac or PC; supports up to twenty-four streams in and out at 48 kHz, and eight channels at 96 kHz; compatible with ASIO 2.0 (Windows™ XP) and OS X Core Audio (Mac OS 10.3.5 or higher)

All the Digital X Bus I/O option cards are wired to support sample rate operation up to 192 kHz.

Q. Does the Digital X Bus Model X.200 ship with any cards included?

A. The mixer comes with two cards pre-installed:

- **Mix Out Card:** Dual stereo control room outputs, two stereo digital inputs and outputs (AES and S/PDIF), two headphone outputs, and the main L/R mix output.

- **Sync Card:** Word Clock input/output, as well as SMPTE input/output jacks.

Q. How many mic preamps does the X.200 have?

A. There are no built-in microphone preamps in the X.200 mixer. You need to purchase either the Mic/Line 4 or the Mic/Line 8 I/O Option cards separately. Using eight of the Mic/Line 8 Cards, you can operate and control 64 simultaneous microphone inputs at any one time.

Q. How do the mic pres on the Mic/Line Cards compare with other Mackie mic pres, such as the Onyx or XDR pres?

A. The Mic/Line cards use the TI/Burr-Brown PGA2500 digitally controlled mic preamp, and all the specifications of that chip can be found at the following website:

http://focus.ti.com/docs/prod/folders/print/pga2500.html

Debating the characteristics of a microphone preamplifier and drawing comparisons to other equipment is truly a subjective argument. We will post all the audio specifications of the analog cards (both the Mic/Line and Line cards) to the Digital X Bus web page, and you can draw your own conclusions based on the specs.

Q. Why didn't Mackie use Onyx preamps for the Mic/Line Cards?

A. The Onyx mic preamps were not used for two very simple reasons: physical size and control features.

First off, the 6" x 6" dimensions of a standard Digital X Bus I/O Option Card cannot accommodate the Onyx mic preamp's circuitry. The TI/Burr-Brown PGA2500 was the perfect solution for this compact-sized design. A Mic/Line 8 card would not have even been possible without such a compact component.

Secondly, the PGA2500 provides digital control over the preamp level setting, which was required to be able to control the mic preamp's level from the user interface. The Onyx mic pre would have required a modification to add this functionality, and thus could have presented an even higher cost to develop.

Q. Can I use my own mic preamps with the Digital X Bus?

A. Absolutely! The Digital X Bus will work just as well with Mic/Line cards as it will with any other I/O cards. Therefore, you can take your external mic preamp of any shape and size and connect it to either the analog or digital I/O option cards – whichever format supports your mic preamp.

For Onyx enthusiasts who want to have that Onyx "sound," a great solution would be to purchase a couple of the Onyx 800Rs and connect them to Digital I/O Cards using the ADAT format. And, by purchasing the less expensive Digital Cards instead of Mic/Line 8 cards, you can save some money to help shoulder the cost of those external preamps (in case you don't already own them).

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NOTE: Don't forget that if you use an external digital device with the Digital X Bus, you will need to establish synchronization between them through either Word Clock (BNC) or the sample clock reference signal that travels along with the digital audio. See your external digital device's product documentation for more information about hookups and sync.

Q. Is there a MADI I/O option for the Digital X Bus?

A. We are currently considering the development and release of a MADI option card for the Digital X Bus.

Q. Do any of the Digital X Bus I/O Option Cards offer analog insert points?

A. No. But we offer Floating Insert Points for inserting analog gear into your signal pathways, which works in a very similar way. Each channel, aux master, bus, or L/R mix bus has a "Floating Insert Send" and "Floating Insert Return" pull-down menu assignment as a "patch point." You can use these floating inserts as you would a regular tip-send, ring-return analog insert point.

The benefit of floating inserts is that you can choose the I/O card you want to use to route the selected channel(s) to your outboard gear. Hence, you can designate a single analog Line Card, for example, to be your send/return highway between the mixer and your rack of outboard gear, and pull up those inserts anywhere you want to use them in the mixer. Each patch point offers a selection of any physical output for a send, and any physical input for a return. This is designed to allow you to insert outboard gear (analog or digital, your choice) right in the signal pathway without any additional routing headaches. Think of these as your "virtual insert points" that allow you to insert a hardware processor or module into any signal pathway in the mixer. What you do with that signal outside the mixer is entirely up to you.

Another benefit of the Floating Insert Points on the Digital X Bus is that balanced sends and returns are used, as opposed to the unbalanced, "tip-send, ring-return" method employed by a majority of the world's analog mixers' built-in insert jacks.

Q. Can you boot the X.200 with external digital and/or word clock on?

A. Yes. External digital and word clock connections will not interfere with the Digital X Bus boot process.

Q. How many faders will work on the Control Surface layer?

A. You can have up to 24 channels of simultaneous control on the MIDI layer. The Digital X Bus appears to your computer as either:

- Mackie Control and two Extenders
- A Logic Control and two XTs
- Three HUI™ controllers

All the same programs supported by the Mackie Control Universal are also supported by the Digital X Bus. You simply select what DAW software you want to control, activate your MIDI ports according to your connection preferences, and engage the controllers from your audio software application. Every time you push the MIDI button on the console, the mixer enters into the Control Surface Mode.

Q. How do I connect the Digital X Bus to my computer to use the Control Surface functionality?

A. There are two main ways of interfacing the Digital X Bus with a Mac or PC for the purpose of controlling worksta-tion software:

1. USB MIDI Interface(s)

Because the Digital X Bus runs the Embedded XP operating system, it is compatible with a variety of third party USB MIDI interfaces that are currently available on the open market. You can install drivers for any USB MIDI interface that is listed in the "Supported Third Party Devices" section of the Digital X Bus web page.

Once the drivers are installed, you can assign your MIDI ports accordingly from the MIDI Tab of the Setup Window (under the Windows Menu) on the Digital X Bus. You then connect three MIDI input and output cables between the USB MIDI interface connected to the Digital X Bus and the MIDI interface of your computer.

2. FireWire I/O Card

The FireWire I/O Option Card for the Digital X Bus offers MIDI communication lines through FireWire. This cre-ates a very convenient, single-cable audio streaming and control logic highway between the mixer and your com-puter.

Using this method, you need to have at least one FireWire I/O Option Card installed in your Digital X Bus, and that FireWire port needs to be connected to your FireWire-equipped Mac or PC. You can then assign your MIDI path-ways from the MIDI Tab of the Setup Window (under the Windows Menu).

It is important to mention here that the Digital X Bus does have built-in MIDI input and output ports that can be used in tandem with any additional MIDI ports you have installed.

Q. What other programs/applications can I control with the Digital X Bus?

A. Because the Digital X Bus emulates the operation of the Mackie Control Universal™ (MCU), it can control all the same great audio software programs as the MCU. This includes, but is not limited to, the following applications:

- Digidesign Pro Tools v4.1 or higher (users of v6.x and higher will require the installation of the "Legacy MIDI Controllers" patch from the Digidesign web site)

- Emagic Logic Audio

- Steinberg Nuendo (v1.52 or higher)

- Steinberg Cubase SX/SL

- Cakewalk SONAR v2.0 or higher

- MOTU Digital Performer v4.1 or higher

- Sony Vegas v5.0 or higher

- Adobe Audition v2.0 or higher

- Magix Samplitude/Sequoia

- RML Labs SAWStudio

Other applications may be available by the time you read this, so simply check the MCU Support page on the Mackie web site for a complete, up-to-date list of all currently supported software systems with the MIDI Layer of the Digital X Bus.

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Q.   What functions will the Digital X Bus control in my workstation?

A.   When using the MIDI Layer, the hardware channel strips of the Digital X Bus provide Fader, Mute, Solo, Channel Select, Record Arming, and Transport control functions for the desired audio software application. Additionally, the dual touch screens of the Digital X Bus have been designed with a "Virtual Overlay" that will adjust and change its button labels and nomenclature to match whatever audio software you have selected to control. To confirm you're set to control the desired program, the name and company logo of the audio software application are also displayed on the screen. The on-screen buttons provide all of the same button features that are part of the MCU mapping protocol.

Q.   What is the fader resolution on the Digital X Bus?

A.   The Digital X Bus faders are 1024 step resolution and are the same great faders found on the Mackie Control Universal. They are 100mm, Penny+Giles optical touch-sensitive faders and do not exhibit any "zipper" noise.

Q.   Can the buses be routed to the L/R mix?

A.   Yes. All channels including the buses can be routed to the L/R Mix.

Q.   Can I use the Ethernet connection to backup sessions and perform software updates?

A.   The Ethernet port is reserved for future use. Mackie is currently reserving the right to implement any new support, installation, or back up procedure through this port. However, the USB ports and the wide availability of USB Flash drives in the marketplace provide an equally fast and convenient method for backing up sessions, loading in new updates and plug-ins, and so on.

Q.   Can the talkback be routed to any output and be disabled in the headphone sends?

A.   The Talkback Mic input appears to the software as just another regular input, and thus can be routed to any channel, be sent to any bus, aux, or direct output. The Talkback Mic can also be turned on/off separately for each phones send.

Q.   Can you connect an external video monitor to the Digital X Bus?

A.   Yes. By using video splitters (not included) you can split the video signal from the Digital X Bus video card to go to an external display. That video card sends out two video signal types – one as a standard VGA and one as a DVi. Both screen outputs are 1024 x 768 resolution.

Q.   What is the "D-Slot" and how do I use it?

A.   The D-Slot, located directly to the left side of the Sync Card, is a high-density I/O slot that is only available for use with the Digital X Bus Model X.400. The X.200 cannot interface with that slot, so it doesn't offer any additional functionality for the X.200.

Q.   **What are the synchronization (sync) options for the Digital X Bus?**

A.   The Digital X Bus supports the following synchronization capabilities:

- MIDI Time Code (MTC) input
- MIDI Machine Control (MMC) output
- SMPTE (LTC) Input
- SMPTE Output (mirrored from the SMPTE input)
- Word Clock Input and Output
- (Model X.400 only) RS-422 Sony® 9-pin Machine Control

SECTION II: Channel DSP and VST Plug-ins

Q.   **How many channels on the X.200 have full DSP?**

A.   The X.200 offers a full channel DSP suite for up to 64 channels when running at sampling rates between 44.1 kHz through 96 kHz. Each channel DSP suite includes a four-band configurable Parametric Equalizer, a Compressor/Limiter with a Soft Knee feature, and a Gate/Expander.

Q.   **Does the Digital X Bus have DSP on all channels, including the buses, aux sends/returns, and master?**

A.   The available channel DSP can be used anywhere in the console – channels, aux send masters, aux returns, buses, or the L/R Mix bus. The amount of DSP available to you depends on how many instances are already running in the mixer.

There is a small "DSP Pool" usage meter on the top section of the right display that tells you how much channel processing you have available at any given time. This usage meter is separated into three categories – EQ, Compressor/Limiter, and Gate/Expander. As you engage more channel DSP, these percentages increase until you have reached the maximum limit of processing (100%) by the system.

Q.   **Does the X.200 support third party plug-ins?**

A.   Yes. You can load, authorize, and operate Windows™ XP compatible VST plug-ins internally. After the loading and authorization/licensing process (the process for which is different for each VST plug-in manufacturer), any VST plug-ins shows up as an available plug-in to use in the Effects Rack. A list of compatible plug-ins will be available from the Mackie website.

Q.   **How can I load VST plug-ins into the Digital X Bus?**

A.   If you buy VST plug-ins from a retailer, the software is typically provided on an installation CD. Therefore you need to have a USB CD ROM drive attached to your Digital X Bus so you can load those plug-ins into the mixer. Once your USB CD ROM drive is attached and you have inserted your plug-in installer CD into the drive, you can run the Installer from the File Menu on the Digital X Bus to execute the installation.

If you purchase and download VST plug-ins from the Internet, you will typically receive an installer (.exe) file. We recommend using a USB Flash (Pen) Drive to transfer the plug-in installers into the mixer. Simply copy the downloaded installer file to your Flash Drive, remove the Flash drive from your computer, insert the Flash drive into one of the available USB ports on the back of the Digital X Bus, run the Software Installer from the File Menu, browse to that .exe file on your Flash drive, and touch OK.

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During the installation process, you will see the exact same installation messages and pop-up screens that you would see if you were loading the plug-ins on a regular PC running Windows XP. The target directory for loading VST plug-ins is:

C:\Program Files\Steinberg\Vstplugins

Q. How do I authorize (or acquire licenses for) my VST plug-ins that I just loaded into the Digital X Bus?

A. Each VST manufacturer has its own method for authorization and/or issuing licenses for their particular plug-in. The Digital X Bus does not interfere with these authorization schemes and will behave just like a regular PC running Windows XP in that regard. The Software Installer (under the File Menu) allows you to locate and run any executable (.exe) file that is either attached via USB or that is located on your internal hard drive.

So, let's say you want to authorize a Waves plug-in or bundle. You need to launch the Waves Authorizer application (Authorizer.exe), which can be found in the "C:\Program Files\Waves\" folder. Once you launch that application, you will be able to choose either the iLok or hard drive challenge/response method to authorize the plug-in(s).

Because the Digital X Bus cannot be connected directly to the Internet, you need to take note of any challenge/identification codes that are displayed on the Digital X Bus screens, copy them down, and use them through your Mac or PC connection to the Internet to acquire your licenses or responses.

Please consult your third party's plug-in documentation for complete information about how to authorize their plug-in for XP.

Q. Can I read my plug-in manuals (in .pdf file format) right on the Digital X Bus?

A. The Digital X Bus is not an all-purpose computer, and hence it does not have Adobe® Acrobat® Reader, or any other program that can read and display .pdf files. You need to open those files on your desktop or laptop computer (Mac or PC) in order to see them. You can always print them to view in hard copy form as you use the plug-ins in the Digital X Bus. You can also download plug-in documentation from the plug-in manufacturer's web site.

Q. If I have already bought and licensed plug-ins for my computer, can I transfer those licenses into the Digital X Bus?

A. The authorization/licensing process for each VST plug-in works exactly the same way in the Digital X Bus as it would on a regular PC running Windows XP. Therefore your ability to transfer your existing plug-in licenses or authorization(s) will depend on the licensing policies of the plug-in manufacturer.

Since we are only acting as a VST host application, we do not have the authority to authorize any third party plug-in for use within the Digital X Bus…nor can we give you permission to transfer any existing plug-in licenses into the Digital X Bus. We recommend you consult your plug-in manufacturer to see what your options are.

Q. Can I load DirectX plug-ins into the X.200?

A. Currently, DirectX plug-ins are not supported by the Digital X Bus.

Q.   Does the Digital X Bus support the use of PACE® iLok?

A.   Yes. You can download the latest PACE Interlok (iLok) drivers from the PACE web site (http://www.paceap.com) and install them on the Digital X Bus. Then, you simply load your plug-ins accordingly, insert your iLok into one of the USB ports on the Digital X bus, and run the respective third party authorization application.

Q.   Can I run freeware VSTs on the X.200?

A.   The use of freeware VST plug-ins is completely at the risk of the user. Mackie does not officially support any freeware VST plug-ins. However, you are able to load them into the console and use them at your own risk. We cannot guarantee the mixer will work to proper specification if any un-authorized freeware VSTs are loaded and/or running.

Q.   If I decide to accept the risk, how do I load and use freeware VST plug-ins inside the Digital X Bus?

A.   Most freeware VSTs are simply downloaded from the Internet as a compressed/zipped file, within which is a ".dll" file for the actual plug-in. The only file you will need for the Digital X Bus is the .dll file. Any other files, such as a "ReadMe.txt" file or anything similar, will be useless in the mixer because the Digital X Bus does not have any ancillary programs, such as Microsoft™ Word™ or Notepad™, installed. Therefore, you will not be able to open them in the mixer.

Once you have the .dll files, you need to copy them into the "D:\FreewareVST" folder on the Digital X Bus' internal hard drive. Simply copy the freeware .dll files to your USB Flash Drive, insert that Flash Drive into one of the USB ports on the back of the Digital X Bus, open the Digital X Bus File Manager (under the File Menu), locate the files on your USB Flash Drive, and copy them to the D:\FreewareVST folder.

Once you have copied those files to the X.200, you need to re-boot the mixer so it can re-scan that directory and make those plug-ins available to use within the Effects Rack.

Q.   Does the X.200 provide ADC (Automatic Delay Compensation)?

A.   The Digital X Bus software uses a manual delay compensation setting to allow you to align your clean and processed channels together. Each channel delay has a maximum setting of 500 ms. Additionally, channel delays can be set very easily by selecting the channel that is suffering the delay, and offsetting all other channels by a certain amount with a single command.

We are aware that ADC is preferable for VST host applications, and we are looking into the possibility of adding automatic delay compensation into a future version of the Digital X Bus software.

Q.   Can I use the "DelayComp" plug-in to offset any latencies resulting from use of the UAD-1 plug-ins?

A.   Yes. The Digital X Bus works just like a regular VST host in that regard. You can assign the UAD-1 DelayComp plug-in on channels adjacent to channels going through UAD-1 processors, and offset the delay by up to eight instances of those plug-ins. Please refer to the UAD-1 product documentation for full information on the use of the DelayComp plug-in.

Q.   Will the X.200 support the TC Powercore and/or FireCore in addition to the UAD-1?

A.   With the current configuration, the TC Powercore card is physically too large to be installed in the Digital X Bus. And because the FireWire I/O Option Card for the X.200 is a FireWire device and not a host, it cannot be connected directly to the TC FireCore. However, the X.200 has been tested with and can run the TC Native Bundle VST plug-ins.

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Q. Can I run my Mackie d8b UFX plug-ins inside the Digital X Bus?

A. As mentioned before, the Digital X Bus is a VST-supported mixer by use of a single, native processor (the Pentium 4). In contrast, the Mackie d8b used a proprietary UFX card that had Motorola™ DSP chips to run the plug-ins. Since these two protocols are entirely different from each other and utilize completely different "shells" to perform their function, they are not compatible.

SECTION III: System Information

Q. I am a Mackie d8b owner…what additional features would I get with the Digital X Bus?

A. The Digital X Bus is the perfect "next step" for a Mackie d8b owner. Why? Because the Digital X Bus was designed to support the d8b style of working, while adding a significant number of new features such as:

- Completely custom I/O formats and signal routing
- Support for higher sampling rates up to 192 kHz
- Touch sensitive and higher resolution faders
- VST plug-in support, including use of UAD-1
- Direct digital streaming via FireWire Option Card
- Greater channel DSP (64 EQs/Comp/Gates at 96 kHz, plus more DSP for VST plug-ins)
- Configurable Control Room with Surround Monitoring
- 24-fader control surface with full MCU emulation
- USB connections for peripherals, such as drives and keyboard/mouse
- Upgradeability using standard, off-the-shelf hardware components

Additionally, the same interface concepts that made the d8b a revolutionary product have been incorporated into the Digital X Bus. One look at the main mixer screen will make former d8b owners feel right at home. Plus, the feedback we've received over the years from the d8b community has allowed us to design the Digital X Bus so we (and our customers) can benefit from that experience.

Q. I'm a Pro Tools guy…so why would I want to own a Digital X Bus?

A. For the price, features, and integration, the Digital X Bus is a great companion for any Pro Tools system. Primarily, it offers not only a 24-fader control surface for Pro Tools but also provides tons of additional processing, mixing, automation, and routing possibilities right alongside your Pro Tools system that can interface digitally at 96 kHz via the AES cards using the single wire ("double-fast") protocol.

You can use the mixer as much or as little as you like…for example, you can capture all your microphone inputs with the Digital X Bus, route all those inputs out digitally to your HD hardware, do all your capturing, editing, processing, etc., in Pro Tools, and then mix down everything back through the mixer, using the same AES connections, in case you want to make some final touches before print. Or, you can have the Digital X Bus simply monitor your HD outputs for routing to multiple speaker matrixes, maybe with some plug-ins strapped across those output channels. Either way, the Digital X Bus adds more processing, mixing, and control power to your studio without interfering with your Pro Tools workflow…all for a little more than a ProControl™.

NOTE: Digidesign has posted the "Legacy MIDI Controllers" update for all Pro Tools versions 6.x. on their web site (www.digidesign.com). You must have this update installed in your Mac or PC in order to use the HUI profile in conjunction with the Digital X Bus. If you don't see the HUI as an option in the Setup>Peripherals>MIDI Controllers area, then you need the update.

Q. What is the warranty policy for the Digital X Bus?

A. We offer a one-year warranty on all parts and labor, and provide warranty support at a number of worldwide Mackie-authorized warranty service centers. Please contact the Mackie Technical Support Staff for complete information.

Q. Can I connect the Digital X Bus to my cable modem and surf the Internet right on the console?

A. There's a big difference between what you could potentially do with the Digital X Bus, versus what is supported by Mackie such that the product will continue to function and perform to specification. While the Digital X Bus is a truly exciting piece of engineering, it is not designed to be an all-purpose computer and thus we cannot provide any warranty service or support to users who treat it as such.

Q. Why did Mackie decide to use Embedded XP as the operating system for the Digital X Bus?

A. Embedded XP is essentially a stripped-downed version of Windows XP that eliminates unnecessary and troublesome drivers. In the case of the Digital X Bus, both the hardware and software are non-variable fixed values that have enabled us to fine-tune the entire system for maximized performance and reliability. Embedded XP also offers a tremendous value in flexibility and compatibility with standard Windows™ features (such as VST® and USB support), without the potential issues that could arise from the use of a consumer version of Windows XP.

Q. Is the Digital X Bus susceptible to any viruses as a result of external installers and software updates?

A. Since we are using an embedded operating system (as described above), there are no ancillary programs such as Microsoft Explorer™, Word™, or any email applications that are typically the portal through which viruses will attack your computer. Not to mention that the Digital X Bus is never actively connected to the Internet, so there is no direct susceptibility.

But, in this day and age, you can never be totally sure…therefore we have created a tool for protective measures, which is the Master Installer CD. This CD is intended to allow the user to completely wipe clean the internal hard drive, re-format that drive, and perform a fresh installation of the entire operating system and associated Digital X Bus software build. So, if any problem should arise as a result of a downloaded installer or even an unforeseen virus, you can perform a complete re-installation of everything and get back to mixing without additional headaches.

Q. Are there any hardware upgrade options for the Digital X Bus?

A. Plenty, and all of them are at your sole discretion. We designed the Digital X Bus using standard, off-the-shelf components that can be replaced and/or upgraded using parts that are commonly found in computer supply stores or online retailers.

For example, because the Digital X Bus uses a Pentium IV 3.0 GHz processor as its host CPU, the motherboard inside the Digital X Bus is already compatible with Pentium–class processors. Therefore you have the ability to replace that CPU with newer versions of the Pentium model processors as they become available to the open market. The same upgradeability is true for the system RAM, the internal IDE hard drive, and most other system components.

By today's standards, the hardware components used in the Digital X Bus are considered more than adequate to suffice even the most demanding mixing and production projects.

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Q. What are the main upgradeable hardware components of the X.200?

A. The X.200 ships with the following hardware computer components:

- Pentium IV 3.0 GHz CPU
- I-Will P4SE motherboard with 800 MHz System Bus
- 1 GHz DIMM SDRAM DDR
- 60 GB IDE hard drive

Obviously there are additional hardware components in the Digital X Bus, but these are the ones you would be most likely to upgrade with newer parts as they become available. The Mackie Technical Support Staff can help you figure out which off-the-shelf components are available to use for upgrades.

Q. How many available PCI slots are there, and what can I use in those slots?

A. The Digital X Bus provides four available PCI slots on the motherboard. Currently, the only third party PCI card we support in those slots is the Universal Audio UAD-1 Powered Plug-ins Card. We have tested up to two of those cards installed and operating within the mixer.

We do not approve the installation and use of any other third party PCI cards into the Digital X Bus. Any effort to load and use un-approved third party PCI cards into the Digital X Bus mixer will void the product warranty.

Q. What are the main differences between the X.200 and X.400 models, and how do I know which one is right for me?

A. The Model X.400 is designed primarily for professional and post production applications, whereas the Model X.200 is designed to be more of a music and project production console. Significant efforts were made to specify the software of the X.400 to support the features required by today's professional post production and surround engineers.

The Digital X Bus Model X.400 provides the following feature enhancements over the X.200:

1. Dual Processor (Xenon) Processors with Hyper-Threading
2. A built-in UAD-1 Powered Plug-ins card
3. Twenty-four additional channels of I/O (via the "D-Slot")
4. Sixteen additional Mix Buses for a total of twenty four
5. Open Panning Law Assignment for Stem Management
6. Bus/Return Switcher for all 24 Buses
7. Speaker Assignment Matrix with Cut/Solo features
8. Surround Monitor Formatter for "Fold Down" monitoring
9. Twelve additional group faders
10. RS-232 (Sony® 9-Pin) Machine Control
11. DSP ordering for channel inserts, EQ, and dynamics modules

Stay tuned to the Mackie web site for complete information on the Digital X Bus Model X.400 as it becomes available.

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Q. Is there any studio furniture available that will fit with the Digital X Bus?

A. Yes. You can find professional quality, custom-fit studio consoles designed for the Digital X Bus from our friends at either the following studio furniture companies:

Omnirax
Sausalito, CA
+1.800.332.3393 (toll free within the USA and Canada)
+1.415.332.3392 (worldwide)
http://www.omnirax.com

Argosy Console, Inc.
Osage Beach, MO
+1.800.315.0878 (toll free within the USA and Canada)
+1.573.348.3333 (worldwide)
http://www.argosyconsole.com

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