

BBI 24MIX24 Digital Mixer

Key Features

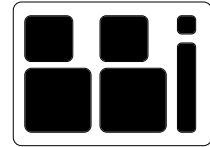
- Full 24x24 matrix mixing.
- 3 Alesis Optical Interfaces (24 bits)
- Parametric equalizer and other filtering options on all input and output channels.
- Delay on all output channels.
- Dual SHARC™ digital signal processors with 32 bit floating point internal data representation.
- Performs up to 24 concurrent timed fades independent of host.
- Non-volatile storage of 16 presets. Virtually unlimited presets under host control.
- Presets may be selected via serial commands or via 8 opto-isolated closure/logic inputs. Up to 24V.
- Programmable outputs include 4 opto-isolated lamp driver/logic (up to 24V at 100 mA per output) and 2 relay closures for power sequencers or other devices.
- Pluggable barrier strip connectors for easy field wiring.

Description

The BBI 24MIX24 is an audio processor for live theater, multimedia shows, museum exhibits and theme attractions. A fully digital device with 24 inputs and 24 outputs using the Alesis Optical Interface, it provides a 24 bit path to ADAT Compatible™ input and output devices such as A-D converters, D-A converters, hard disk and tape recorders, and PC sound cards. Synchronization of such devices with the mixer is achieved via the external word clock input and output.

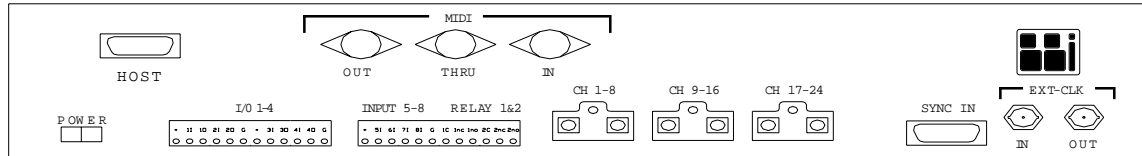
The 24MIX24 uses 32 bit floating point DSPs to perform the following sequence of operations. Each optical input channel has a parametric equalizer and other selectable filters. These are connected to the inputs of a 24x24 matrix mixer. Each mixer output feeds another parametric equalizer/filter stage, followed by a digital delay, which feeds the optical outputs.

The mixer is capable of calculating timed fades between presets. Up to 24 simultaneous fades may run concurrently, one corresponding to each input channel. This gives the mixer total flexibility for fading between sources and panning between outputs. These are the essential capabilities for creating three-dimensional multi-channel audio for shows and exhibits of all kinds.



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Rear Panel Detail



Description (cont'd)

The 24MIX24 is configured using a Windows95 program (included), with either a MIDI or RS-422 connection to the host. After configuration, the 24MIX24 may be operated stand alone or under continuous control from a host. In standalone applications, internally stored presets and fades may be triggered via the closure/logic inputs, allowing a simple interface to push buttons and control devices. For more complex shows, presets may be downloaded on the fly and executed under host control. Commands are simple ASCII strings, allowing connection to a wide variety of computers and controllers.

The 24MIX24 belongs to BBI's family of audio and show control products, and may be operated as a slave to a BBI PC-based show controller.

Key Features (cont'd)

- External word clock input and output.
- Front panel LEDs indicate processor status.
- Stand alone and host controlled operation.
- RS-422 or MIDI host port allows choice of protocols and networking of multiple controllers for configuration and control.

- Includes Win95 based configuration and control program.
- Compatible with BBI's PC-based show and lighting controllers and scheduling software..

Architect's and Engineer's Specifications

The digital mixer shall have 24 inputs and 24 outputs using fiber optic connections with 24 bit data paths. It shall perform 24x24 matrix mixing and have parametric equalizer and other filters on all input and output channels. In addition, output channels shall have adjustable digital delay. Internal data representation shall be 32 bit floating point. The mixer will perform up to 24 concurrent timed fades independent of host. Internal non-volatile memory will store 16 presets, while external control will allow dynamic downloading of presets. The control interface will support both RS-422 and MIDI. Opto-isolated closure/logic inputs, lamp driver/logic outputs and relay closures shall be provided for interface to other devices. External word clock input and output shall be provided. The mixer will be capable of both standalone and host controlled operation. A Windows95 based configuration and control program shall be included. The mixer shall be the BBI 24MIX24 Digital Mixer.

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