**DN7454 Digital Delay Line & Multiprocessor**

**User Configurable Digital Audio Delay Line & EQ**

- Seven configurable EQ filters on every input (PEQ, hi/low pass, hi/low shelf).
- High quality, 24-bit A/D and D/A convertors.
- 112dB dynamic range.
- Up to 5.4s delay available (mono mode).
- Six configurable EQ filters on every output (PEQ, hi/low pass, hi/low shelf).
- Full-time input and output metering.
- Phase compensation, rotary volume control, metering and a full-function compressor / limiter are also featured on all outputs.
- Multiple functionality allows use as problem-solving 'audio toolbox'.

**Architect's and Engineer's Specification**

The delay line shall provide for two inputs and four outputs, housed in a rugged 1RU chassis. It shall have a maximum total delay time of 500ms at a bandwidth of 20kHz. Delay times shall be displayed in units of time and distance and shall be adjustable to a resolution of 21 microseconds.

When displaying distance, a temperature compensation facility will allow the delay time to be automatically recalculated for a specified temperature.

The unit shall incorporate a master delay time on the input and individual delay times on each of the outputs. Each input shall view seven bands of full parametric EQ, with the bands individually configurable according to the following: LO, LOW, MID, HI and PRE. Each output shall include six bands of parametric EQ which can also be individually configured by the user. All delay times shall be displayed in units of time and distance and shall be adjustable to a resolution of 21 microseconds.

Each output shall have individually controllable compressor and limiter functions.

The delay line shall reheat, or exceed, the following specifications:

- **Frequency response:** 40 Hz to 20kHz (±0.5 dB)
- **Dynamic Range:** >112dB

Options for the various delay and equalisation parameters shall be presented on a liquid crystal display and shall be selectable by six front panel control buttons and shall be adjustable by a computer software control.

User memories shall be provided for setup storage. A security lock out system shall be available, including a user defined code number.

Each input shall have a gain control meter and each output shall have an attenuation control and meter for system monitoring.

Digital levels shall be individually adjustable from within the software and levels recalled as part of the user memories. A MIDI interface shall be provided as standard. The delay line shall be capable of being controlled remotely by a PC via an RS-232 port.

All input connections shall be terminated by XLR style connectors.

A meter facility will allow the delay time to be automatically recalculated for a specified temperature.

When displaying distance, a temperature compensation facility will allow the delay time to be automatically recalculated for a specified temperature.

The unit shall be capable of operating from a 90V to 250 V a.c., 50/60 Hz, power source.

Inputs and outputs shall be electronically balanced and there shall also be capable of being controlled remotely by a PC via an RS-232 port.

All audio connections shall be via XLR style connectors.

**User Defined Digital Audio Delay Line & EQ**

- 112dB dynamic range.
- Up to 5.4s delay available (mono mode).
- Six configurable EQ filters on every output (PEQ, hi/low pass, hi/low shelf).
- Full-time input and output metering.
- Phase compensation, rotary volume control, metering and a full-function compressor / limiter are also featured on all outputs.
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