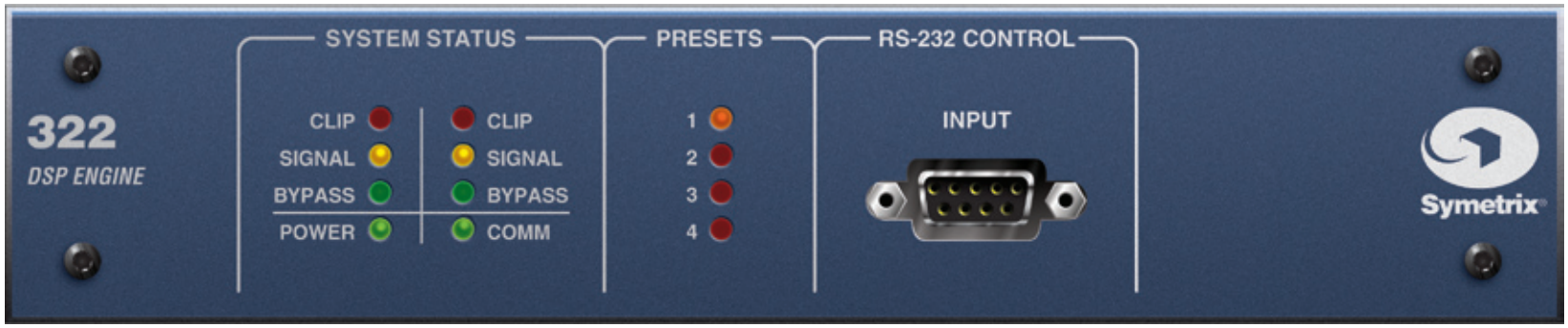
DATA SHEET: 322 DSP Engine

Symetrix

The Vision Behind the Sound

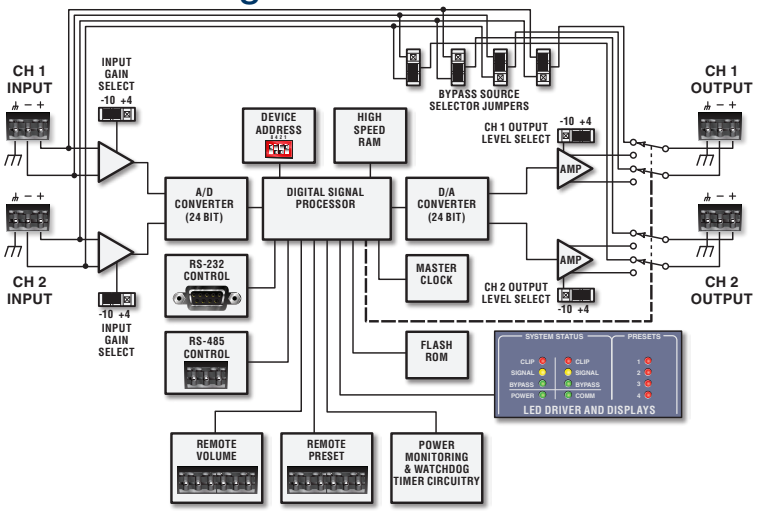


[Pictured actual size]

The 322 DSP Engine from Symetrix.

This compact DSP Engine matches a deep set of processing features with a breakthrough price. Small installations with small budgets don't have to dictate small audio thinking. Designs that previously would have required either multiple analog units, or DSP power available only from large multi I/O platforms, are all possible with the 322 DSP Engine. This half-rack unit provides all the processing generally needed between a mixing console and a power amplifier in any basic sound system. Enhance performance and increase flexibility with the 322 DSP Engine from Symetrix, the engineering-driven company of signal processing specialists.

322 Block Diagram



Features

- Half rack space, two (2) channel multi-purpose digital signal processor. Applications: Installed Sound, Broadcast, Studio.
- Mixer, Routing, Noise Generator, Delay.
- Compressor/AGC, Limiter, Gate, Parametric, Shelf EQ, plus Hi/Low pass filters.
- Software included for easy drag and drop set-up.
- Features four (4) presets and tamper proof front panel.

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Engineered by Symetrix

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[Pictured actual size]

Architects and Engineers Specifcations

The digital signal processor (Processor) shall have two inputs and two outputs. There shall be no user-accessible (front panel) controls. The Processor shall perform all signal processing functions in the digital domain utilizing 24-bit digital word lengths. Analog-to-digital and digital-to-analog conversion shall use 24-bit delta-sigma converters. The Processor shall provide the following signal processing functions: high-pass and low-pass filters, high and low shelving filters, parametric equalizers, signal delay, single and split-band compression/limiting, automatic gain control (AGC), mixing, routing, gating, and crossover with adjustable slope and filter type. The Processor shall also provide pink noise for testing and sound masking purposes. All signal processing functions shall be controllable by a suitable graphical interface computer program, which allows each channel of the Processor to be configured to use any of the aforementioned signal processing functions via a drag-and-drop user interface. Each channel shall have eight locations for signal processing blocks. It shall be possible to interconnect the two channels of the processor so that one input drives both outputs. Communication with the Processor shall take place via RS-232 serial protocol. The Processor shall be capable of storing 4 preset configurations in its own memory recallable via a contact closure arrangement. In addtion to the contact closure terminals, there shall be two analog remote control ports that can be programmed via graphical user interface. The system status shall be indicated on the front panel. The system programming port shall be located on the front panel. Up to 15 Processors shall be capable of being chain connected together via a rear-panel RS-485 port and individually addressed via four DIP switches. All audio connections shall be balanced and accessible via Euroblock connectors. RS-232 connections shall utilize DB9 female connectors. There shall be no batteries within the Processor. The unit shall be capable of operating by means of a Symetrix PS-3 or PS-3E external power supply connected to 115 VAC nominal (95 to 130 VAC), 50/60 Hz or 230 VAC nominal (207 to 253 VAC), 50 Hz where applicable.

The digital signal processor shall be the Symetrix 322 DSP Engine.

Specifications

PERFORMANCE DATA

Frequency Response: 20 Hz to 20 kHz, ± 0.5 dB
Dynamic Range: 108 dB typical
THD+Noise: -95 dB at 1 kHz typical CMR >40 dB
Crosstalk: <-50 dB at 10 kHz
Maximum Input Level: +24 dBu
Maximum Output Level: +24 dBu
Number of Stored Programs: 4
Maximum Number of Units on a Single Daisy Chain: 16
RS-485 Baud Rate: 38400
RS-232 Baud Rate: 38400

CONNECTIONS

Line Inputs and Line Outputs: Euroblock
Control: RS-232 and RS-485
Device Address: Dip switch
Remote Preset: Select and Volume Control Euroblock
Power In: 7-pin DIN

PHYSICAL

Size: (H x W x D) 1/2 rack unit,
1.75 in. x 8.5 in. x 8.5 in., (4.45 cm x 21.59 cm x 21.59 cm)
Shipping Weight: 5.5 lbs. / 2.5 kg

ELECTRICAL

Power Requirements:
115 VAC nominal, 95 to 130 VAC, 50 to 60 Hz
230 VAC nominal, 207 to 253 VAC, 50 Hz

ENVIRONMENT

Maximum operating ambient temperature: 30° C.

HOST COMPUTER REQUIREMENTS

A Windows PC, 233 MHz or higher Pentium processor: WIN 98SE, WIN ME, WIN 2000 or WIN XP; 5 MB free storage; 1024 x 768 graphics; 16bit or higher colors; CD-ROM drive or Internet connection; 32 MB or greater RAM as required by the operating system.

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