

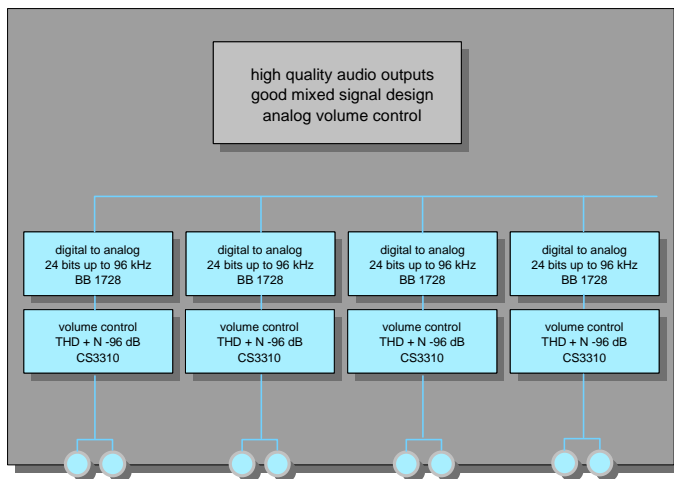
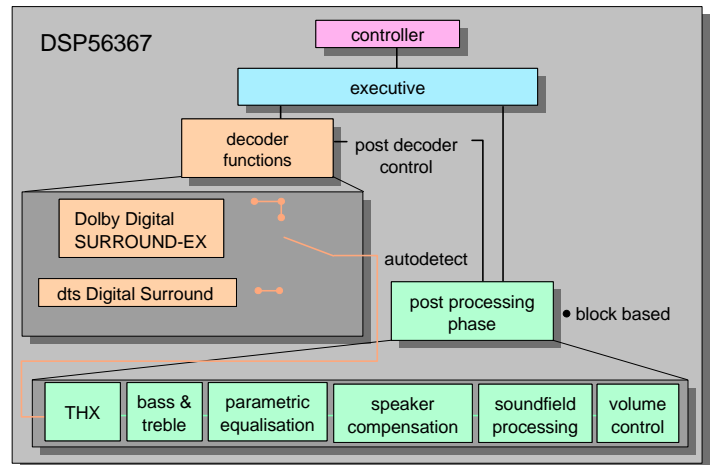
Digital Audio Engine data sheet

The DSP

The DSP56367 is a high speed, 24 bit, Digital Signal Processor (DSP) for multichannel decoding and post processing. It auto detects the compressed format from the main multichannel audio compression bit stream formats - Dolby Digital and DTS - and decompresses to produce eight channels of audio. DSP56367 runs at 150 MHz and the large on-chip RAM further enhances speed.

It has processing power left after decompression to implement the post processing phases (PPPs) needed by home theatre and surround sound systems - such as subwoofer management, and Lucasfilm THX processing.

The Post Processing Phase architecture allows users to insert custom modules.



Analog interface

The analog interface provides six or eight channels of high quality analog output at standard audio sample rates with 24 bit resolution. The converters used have Total Harmonic Distortion plus Noise (THD+N) of -96 dB, which is matched by the analog volume controls.

The Digital Audio Engine is a 'mixed signal' design - combining digital and analog signal processing on a single board. Great care has been taken to preserve the highest analog quality through appropriate choice of components and board layout.

Decompressed digital outputs are also available on some models.

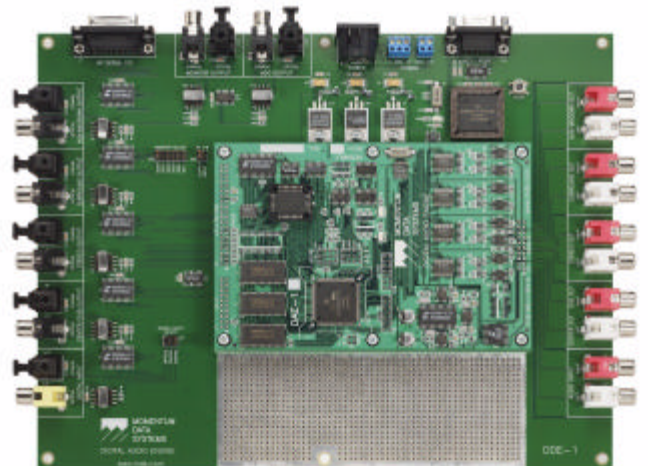
Development environment

The Digital Audio Engine Development Environment (DDE) provides a ready made test bed for development. It provides power and connections for digital and analog I/O.

There are eight connectors for analog output and four SPDIF transmitters which monitor the decompressed multi channel digital audio from the DAE, if available.

Digital and analog monitor connectors can be jumpered to monitor analog or digital in, any of the digital audio outputs or any of the analog audio outputs, on some models.

Digital and analog input connections are also provided.



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17330 Brookhurst St., Suite 230, Fountain Valley, CA 92708
Phone: 714-378-5805 / Fax: 714-378-5985
email: dsp@mds.com / web URL: <http://www.mds.com>