

**LM1991A, LM1991 Computer Controlled Tone/Volume/Balance/Etc....**
**General Description**

The LM 1991 is a CMOS/Bipolar high quality Audio building block intended to do all of the audio signal processing that is required for High Fidelity Audio. The LM 1991 is built using standard CMOS processing. Lateral NPN transistors present in this process are used to build low noise Op Amps. The combination of CMOS switches, Bipolar Op Amps, and SiCr resistors make it possible to achieve an order of magnitude improvement in quality over standard Bipolar circuits.

The LM 1991 has a built-in logic control circuit which allows a computer to communicate to the audio circuitry through a standard MICROWIRE™ interface. An A/D and is included in the LM 1991A to enable the audio circuitry to be controlled without a computer through the use of external potentiometers.

**Features**

- Low noise and distortion
- Computer programmable
- Stand alone operation without a computer
- Three Stereo and two Monaural sets of inputs
- Provisions for more Stereo inputs
- Inputs DC coupled
- Anti Input Switch Transient suppression
- Full boost and cut Treble and Bass Tone Control
- 32 Volume levels including mute
- Externally programmable loudness
- Left /Right Balance Control
- Front/Back Fade Control
- Single supply Operation
- Minimum external components
- All external capacitors Chip Size (.1uf or less)
- Provisions for connection to DNR™

**Equivalent Schematic (one channel)**
