ON CHIP SYSTEMS T-64-29

CURTIS ELECTROMUSIC SPECIALTIES
110 Highland Ave.
Los Gatos, CA USA
(408) 395-3350 TLX No. 499-2868

C E M 3 3 8 5

DUAL LOW NOISE V.C. FILTER

Preliminary, January 1987

Description

The CEM 3385 is a dual 4-pole low-pass voltage controlled filter intended for applications requiring high audio quality. Completely independent, each filter provides both frequency control over a 12 octave range and variable Q enhancement (resonance) from 0 to self-sustained oscillation, all with easily interfaceable voltage levels from 0 to +5 volts.

All transconductors used throughout feature very low noise, low feedthrough, and low distortion, resulting in better than 96dB signal-to-noise ratio and less than 0.1% THD for each filter. The low control voltage feedthrough ensures inaudible "pops" and "clicks" during fast transition sweeps of the filter frequency.

The use of second order sections to implement the two filters offers extensive applications flexibility. Through proper selection of capacitor ratios, the frequency and damping factor of each second order section may be independently selected. Thus Bessel, Butterworth, and Chebyshev responses of up to 8 poles may all be realized, making the 3387 suitable for antialiasing, reconstruction, and timbric control filters, or any combination of these. A 4-pole 1dB ripple Chebyshev reconstruction filter followed by a classical 4-pole musical instrument low pass VCF with reasonance is one example.

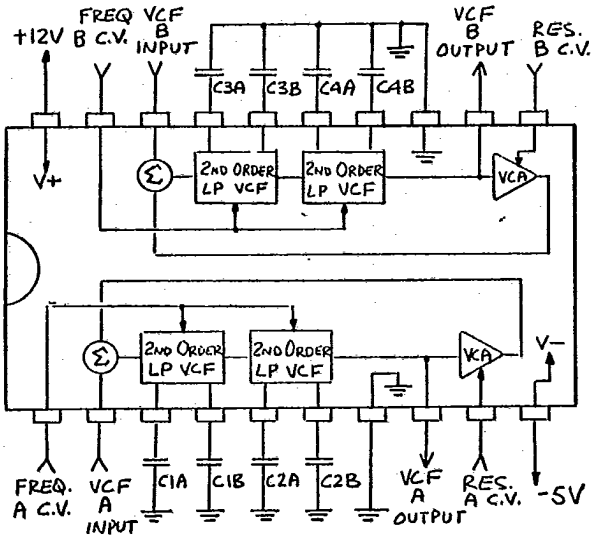
With its exceptionally low noise and low distortion, the CEM 3385 is the ideal choice for signal filtering in CD compatible systems.

Features

- Two Independent 4-pole Filters on a Single Chip
- Extremely Low Noise: >96dB S/N ratio
- Low Distortion: <0.1% THD
- Different Responses Possible: Bessel, Butterworth, Chebyshev, etc
- Applications for Antialiasing, Reconstruction, & Timbric Control Variable Filters

This Material Copyrighted By Its Respective Manufacturer

ON CHIP SYSTEMS



CEM3385 DUAL LOW NOISE VCF

(PROPOSED PIN-OUT ONLY. SUBJECT TO CHANGE)

This Material Copyrighted By Its Respective Manufacturer