



CURTIS ELECTROMUSIC SPECIALTIES
110 Highland Ave.
Los Gatos, CA USA
(408) 395-3350 TLX 499-2868

C E M 5 5 1 0

FAST OCTAL SAMPLE & HOLD

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Description

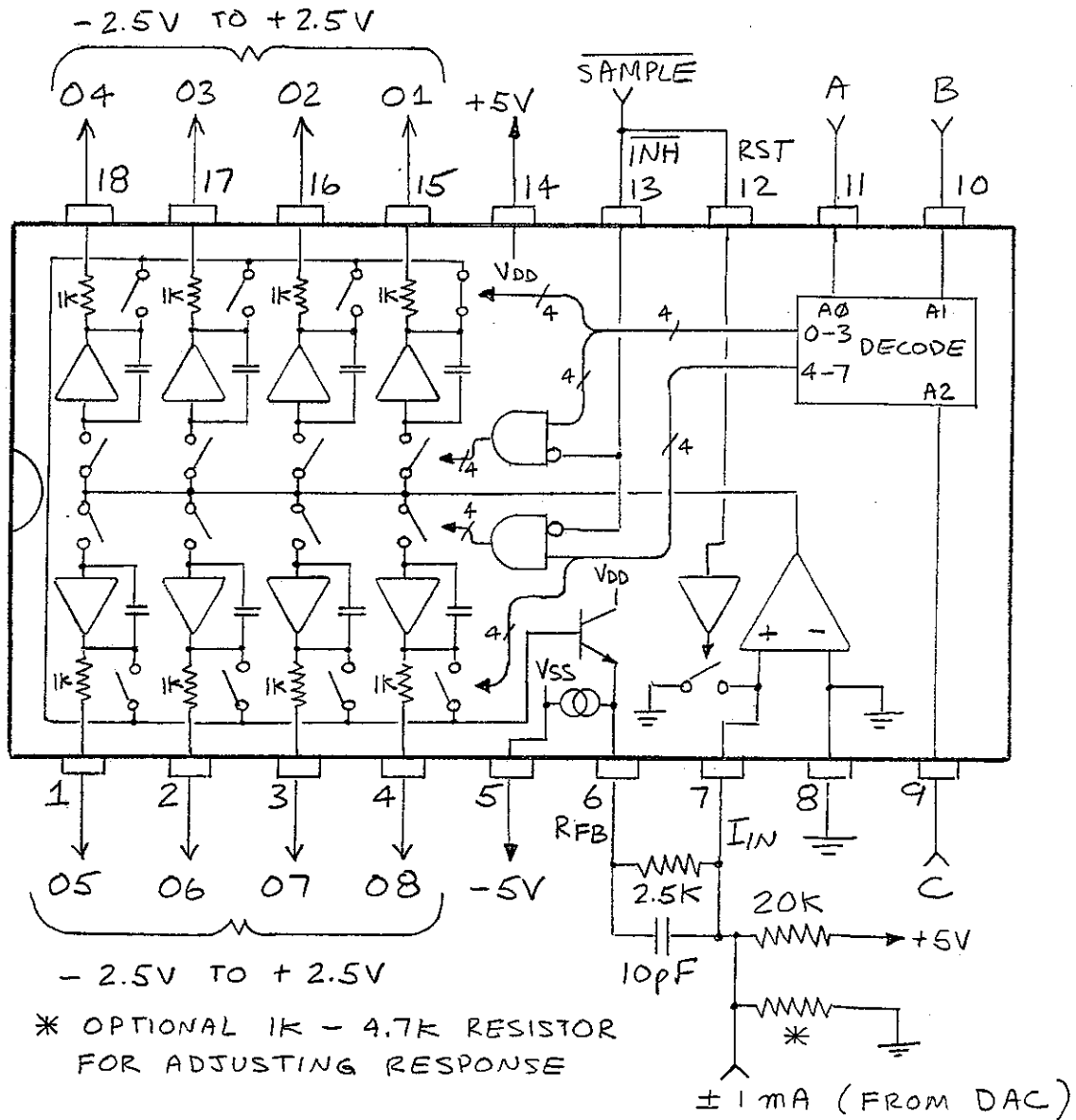
The CEM 5510 is a high speed eight channel multiplexed Sample and Hold intended for multiplexed digital audio applications. Containing a very fast op amp, analog multiplexer, and eight Sample and Holds capable of settling to 12 bits in less than 400ns, the 5510 accepts a current input from any industry standard high speed bipolar DAC to generate 8 channels of digital audio in less than 2 uS (500 nS per channel).

Special care has been taken in the design to maintain this fast response and prevent transient overshoot even with moderate capacitive loading on the outputs and input. Since the device is intended for digital audio where DC offset is not important, the design has been optimized for high speed and low distortion. A grounding switch at the current input (controlled by RST) is an optional feature, which when given the proper timing relative to the inhibit signal (INH), can increase throughput even further. When the device is powered by +/-5 volt supplies, outputs can swing a minimum of -2.5 to +2.5 volts at full speed.

Self-contained and requiring few external components, the CEM 5510 allows fast multi-channel digital audio to be generated with a minimum of hardware and expense.

Features:

- o Fast: Acquisition to 12 bits in < 400 nS
- o Low distortion: < .02%
- o Hold Capacitors on-chip
- o Low droop: 1 mV/mS max.
- o No overshoot
- o Can handle capacitive loading without degrading speed
- o Independently controllable grounding switch
- o Static protected CMOS inputs
- o Large output swing: 5 V.P.P with +/-5 V supplies



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