

## Re: need L290 substitute

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  - *Date:* Wed, 16 Apr 2008 13:48:13 -0700
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Dave Platt wrote:

How fast do the bits change? Can you do it in software with a PIC/AVR/8051? ...

Way to go.

Seems likely! At a trade show yesterday I picked up a sample of a Silicon Labs 336D development "stick". The daughter board's micro is a QFN20 device with an 8051-compatible core, 16 kB of flash code space, 768 bytes of RAM, a ten-bit 200 kbps 16-channel AC, and a single 10-bit current-output DAC, runs at up to 25 MIPS using its onboard oscillator or at lower speeds (onboard or RC or crystal).

Writing a lookup-table-based quadrature-to-value loop with a DAC output would be easy and fast. Cost for the bare chips from Mouser is \$4.31 in onesies, under \$3 in hundreds.

That's one of the issues, the 8051 species are usually not exactly a bargain. There is a price to be paid for reducing the effects of obsolescence.

I'm sure that similar capabilities are available in other micro families (e.g. PIC, TI MSP340, etc.). If you can accept a coarser DAC output (e.g. a low-pass-filtered PWM or PDM output) then even a pretty tiny jellybean PIC or AVR could do the job.

The MSP430F2002 can be had for close to a buck in quantities. If only TI wouldn't have dropped the ball on support. How is SiLabs' support?

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Regards, Joerg

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