

IMPLEMENTATION NOTE

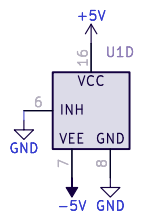
Implementers may tie R16 to the microcontroller supply rail instead of +5V and then omit R17, substantially reducing standby power consumption.

PART SELECTION NOTES

- R1 Precision resistor, ±1%
 - R2-3 Precision resistors, ±1%
 - R4-17 Basic resistors, ±5%
 - C1 Basic ceramic capacitor
 - C2 PP or PPS film capacitor
 - C3+ PP or PPS film capacitor
 - D1 4148-class diode
 - U1 74HCT4053
 - U2 TL082
 - U3 DG4051
 - U4 TL082
 - U5 LM311 or LM211
- Value given is for 72 MHz timer freq. If running at a different freq. scale prop. to period
- High quality is imperative here – prevents interchannel bleed-through
Lower quality capacitors are acceptable, but will increase settling time
- Ensure HCT variant if driving from 3.3V; otherwise any basic triple switch
FET opamp, should be reasonably fast, high precision not needed
Low charge injection variant of 74HCT4051. Critical for performance
Any basic FET opamp
Fast comparator

LAYOUT NOTES

- Route to minimize coupling between digital and analog signals
- Edge rate limiting resistors R6-12 should be near the controller
- Ensure return currents through GND do not disrupt GND; likewise for +5V/A and -5V/A
- Decouple supplies well at all ICs, especially the switches
- Guard traces are recommended as shown, but not critical. Route them where feasible, but do not disrupt otherwise good routing practice.



ip is fake, steal this
alexis

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Title: TIMDAC reference design, cheaper, 1 output

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