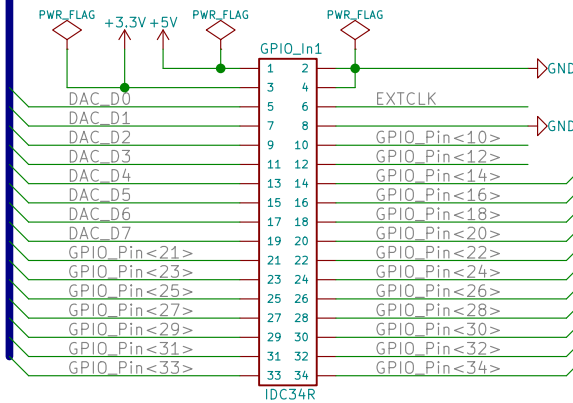
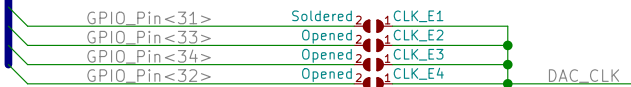


Extension In



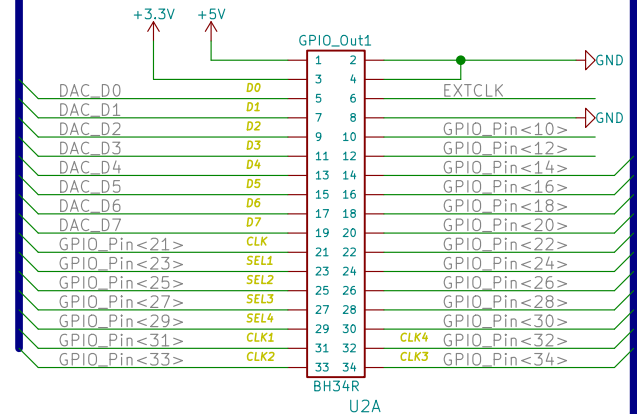
Multi Channel Option!



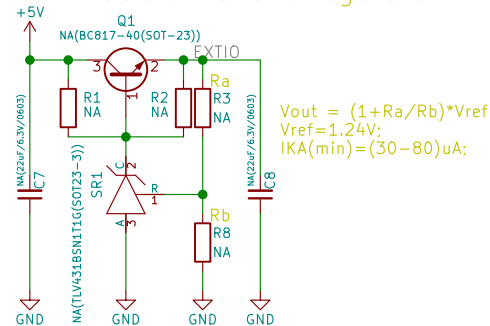
FUNCTION/MODE	MODE_0	MODE_1
Input code format	Binary(default)	Twos complement

Note that the update rate is limited to 67 MSPS for a digital supply voltage DVDD of 3 V to 3.6 V. Maximum output update rate = 100MSPS when DVDD = 4.5 V to 5.5 V. Because of this, DVDD has been set to 5V and SN74ACT244DWR buffer is used for levels shifter

Extension Out



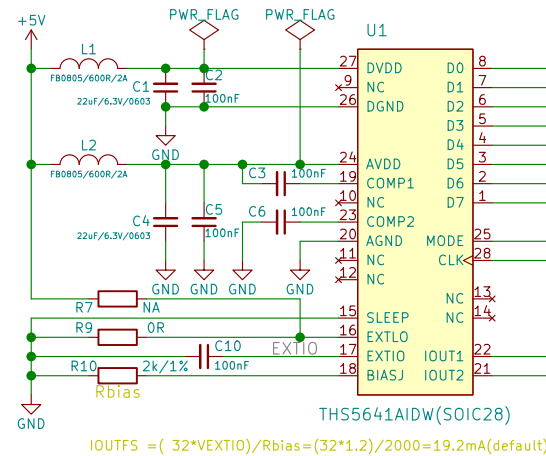
(Option!) Precision shunt regulator



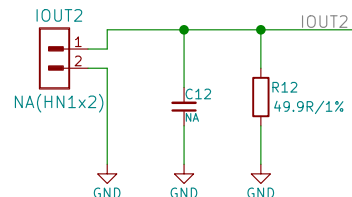
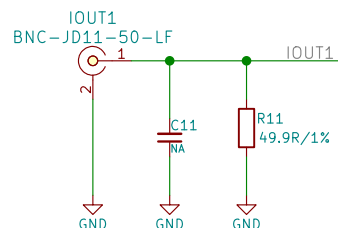
$$V_{out} = (1 + R_a/R_b) * V_{ref}$$

$$V_{ref} = 1.24V;$$

$$I_{KA(min)} = (30 - 80) \mu A;$$



$$I_{OUTFS} = (32 * V_{EXTIO}) / R_{bias} = (32 * 1.2) / 2000 = 19.2mA (default)$$



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File: ICE40-DAC_Rev_A1.sch

Title: ICE40-DAC

Size: A4 Date: 2021-02-19
KiCad E.D.A. kicad 5.1.6-c6e7f7d87ubuntu18.04.1

Rev: A1
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