







For port multipliers, GPIO High output is V_DD = 0.7V. Consider a 4V power supply for these to get 3.3V outputs

Load Analysis:

USB Interface: 220 mA
DAC: 5 uA
DAC Amplifier: Max Output Current: 10 mA
ADC: 1.4 mA
ADC: 1.4 mA
ADC Reference: 550 uA unloaded + 20 mA max load = 20.55 mA
Pin Expanders:
Each pin can draw up to 25mA
16 pins per device * 2 devices * 25mA each = 800 mA total

Total: 1051.955 mA = 1.052 A

USB Interface draws from bus power and is below the 500 mA maximum for USB 2.0. $\,$

Everything else will draw from a 5 V, 1 A external power supply.

Sheet: /
Fite: NCU breakout board.sch
Title: Digital MCU Simulator — Breakout Board Schematic
Title: Digital MCU Simulator — Breakout Board Schematic
Revi