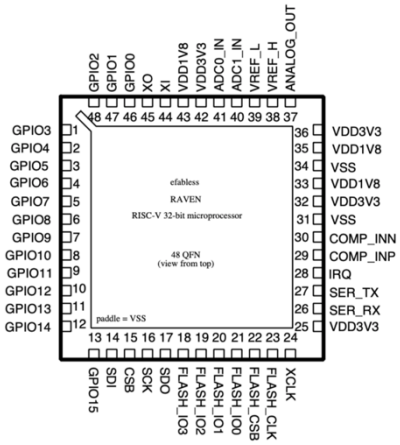
# EFX3201RV

## 32-bit RISC-V Microcontroller for Embedded Applications

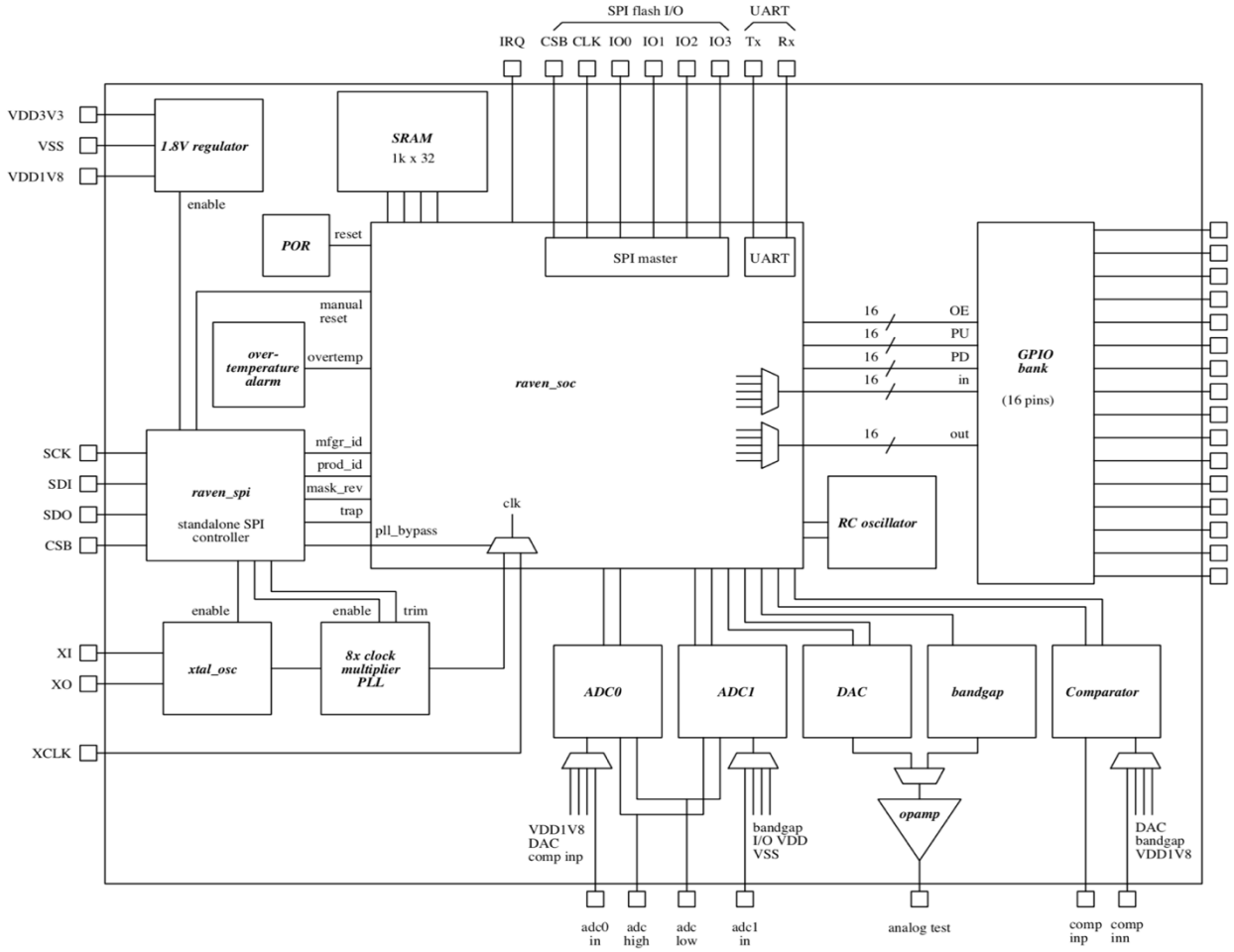
## Key Features

- RISC-V CPU (PicoRV32)
- SRAM 32x1024
- 100 MHz clock rate
- Programmable clock source
- 16 channels GPIO
- 2 ADCs
- 1 DAC
- 1 Comparator
- Over-temperature alarm
- 100 kHz RC oscillator
- Programmable GPIO outputs
- Programmable interrupts on GPIO inputs

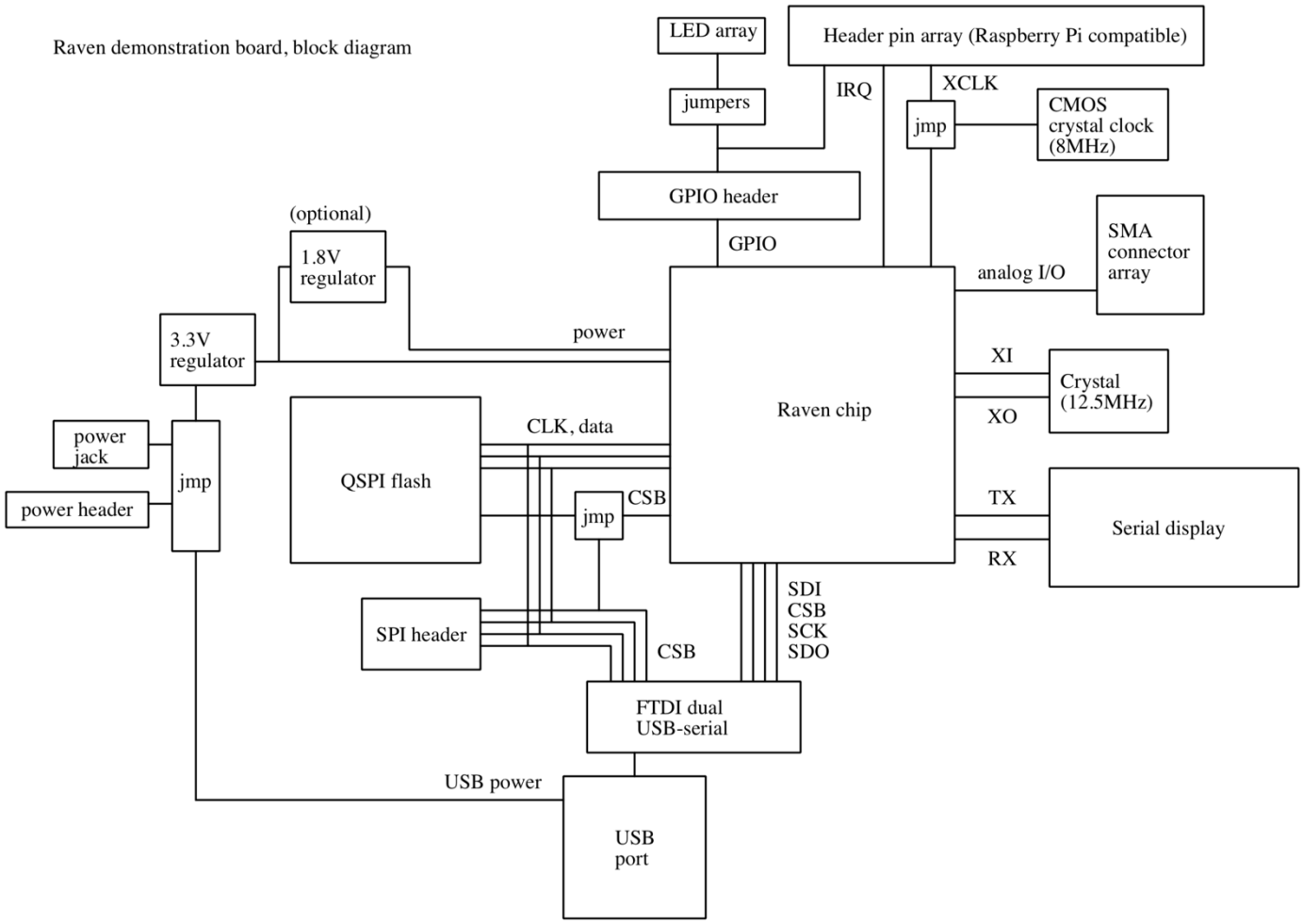
## Pin Configuration




## Block Diagram



## Raven Development Board




## Features

1. Can be powered by external supplies, power jack, or USB.
2. Raven SPI programmed through FTDI via USB
3. SMA inputs to analog functions.
4. Serial display for text I/O from Raven chip.
5. Clock from crystal (100MHz onboard), external (8MHz) or data line
6. Match Raspberry Pi header pins with GPIO header pins
7. Split supplies if external 1.8V needed; otherwise chip is powered from 3.3V only. 3. Flash chip programmed through FTDI via USB

**SPI flash:** Cypress S25FL128 or similar ($2.42 each from Digi-Key). Use the 8-pin SOIC (4 data + clock, select, power, and ground). 3.3V.

**Serial display:** Use a SparkFun serial-enabled 16x2 LCD ($25), 3.3V, or the 20x4 SerLCD (also $25) (available from Digi-Key). Or the 20x2 SerLCD ($20).

**FTDI:** Use FT2232H (about $7 for the LQFP package from Digi-Key

## For more information visit: https://github.com/efabless/raven-picorv32