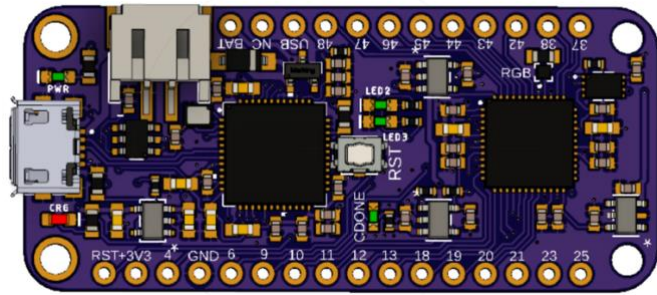


Overview:

The IcyBlue Feather is a full featured Field Programmable Gate Array (FPGA) development board designed to provide rapid prototyping capabilities and an educational platform for introductory FPGA development courses and learners.

**Features:**

- FTDI FT232HQ USB FIFO Programming interface
- ICE5LP4K FPGA with 3520 LUT
- 2 User LED Outputs
- 1 RGB LED
- 22 GPIO in a feather compatible pinout
- Lithium Polymer Battery Charger w/ 100mA charge current (MCP73831)
- JST-PH 2 Pin LiPoly connector
- Micro USB Connector
- 1.2V, 2.5V, and 3.3V Power Domains
- 2MB SPI FLASH (W25Q16JVUX)

Applications:

- Educational Learning Kits for Higher Ed & High School Engineering Coursework
- Custom ASIC for use with Adafruit Feather Compatible Footprints
- High Speed Data Buffer
- Off Chip DSP Processor
- RISC-V Development
- Advanced Low Power ASIC Research

Electrical Specifications

NET NAME	MIN	NOM	MAX	UNIT
VUSB	4.5	5	5.5	V
VBAT	3	3.7	4.2	V
VBAT CHG CUR	50	100	1000	mA
3.3V RAIL	3	3.3	3.4	V
3.3V CURRENT			500	mA
2.5V RAIL	2.3	2.5	2.6	V
2.5V CURRENT			250	mA
1.2V RAIL	1	1.2	1.3	V
1.2V CURRENT			150	mA
SPI (FT232H -> FPGA)		3.3		V
GPIO	1.2	2.5	3.3	V
GPIO CURRENT			20	mA
RED LED (FPGA)		1.9		V
BLUE LED (FPGA)		2.9		V
GREEN LED (FPGA)		2.9		V
RGB LED			20	mA
SPI FLASH		3.3		V