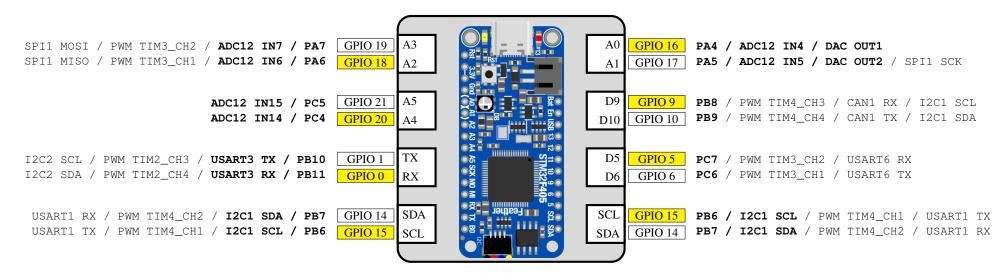
## **Adafruit STM32F405 Feather Express**



Grove Shield for Particle Mesh V1.0

Core: Arm 32-bit Cortex-M4 CPU with FPU 168 MHz

Memory: 1 Mbyte of Flash memory 192+4 Kbytes of SRAM 512 bytes of OTP memory

**Voltage:** Vss = 0V Vdd = 1.8V to 3.6V Vin[MIN] = Vss - 0.3V Vin[MAX] = 4.0V

I/O: All I/O ports with interrupt capability with 5V tolerant I/Os (not ADC input)

PWM: Many pins can do PWM output

ADC: 3 × 12-bit (2.4 MSPS up to 24 channels and 7.2 MSPS in triple interleaved mode)

**DAC:**  $2 \times 12$ -bit (or 8-bit) Noise and triangle wave generation

Timer: Up to 17 timers (up to twelve 16-bit and two 32-bit timers up to 168 MHz)

Communication: 3 × I2C interfaces 4 x USARTs/2 UARTs 3 x SPIs (42 Mbits/s) (2 with muxed full-duplex I2S) 2 x CAN

Other: USB 2.0 full-speed 10/100 Ethernet 8 to 14 bit parallel camera interface

Feather add: 2MB SPI Flash chip NeoPixel LED (GPIO 8) Micro SD card slot Qwiic/STEMMA-QT I2C connector

Feather battery: Around 3.7V (3.2 to 4.2V max) Double-100K resistor divider connected to A6 pin (voltage measuring)

**DFU Bootloader:** Connect B0 pin to 3.3V pin. Then press the reset button. Need STM32CubeProgrammer software.