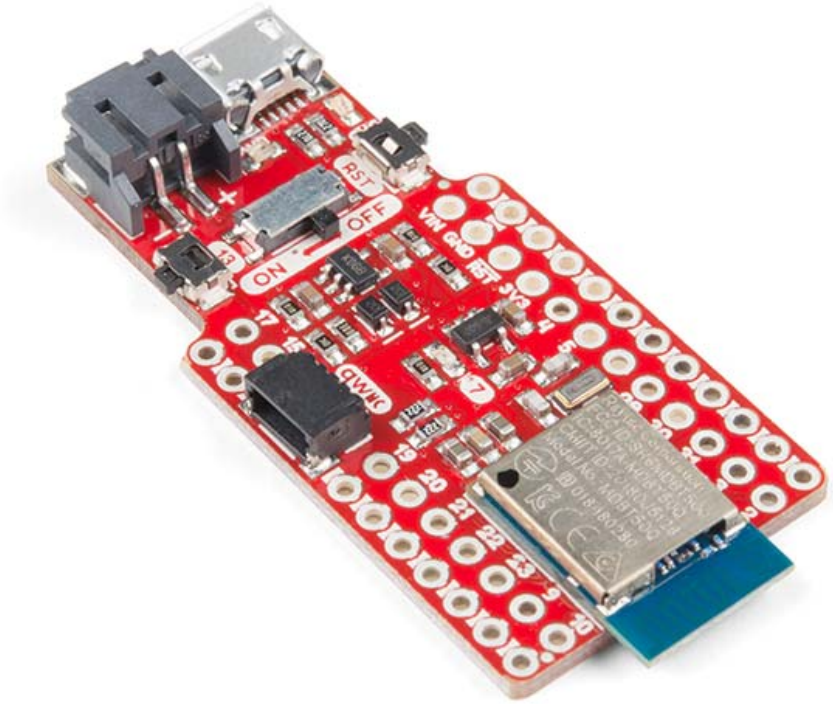


SparkFun Pro nRF52840 Mini - Bluetooth Development Board

DEV-15025

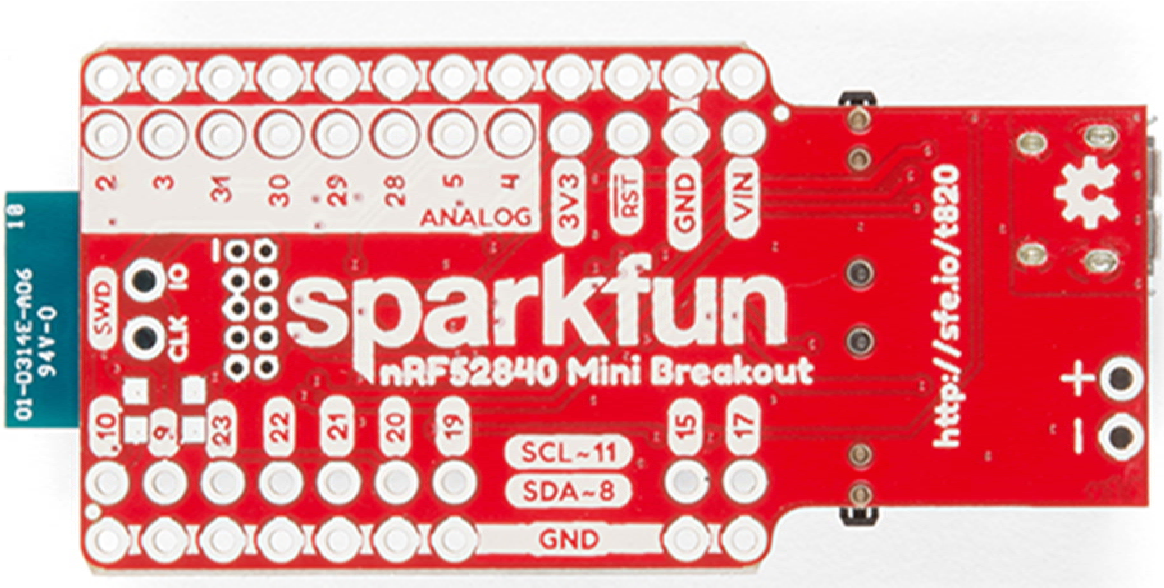
The SparkFun Pro nRF52840 Mini is a breakout and development board for Nordic Semiconductor's nRF52840 – a powerful combination of ARM Cortex-M4 CPU and 2.4GHz Bluetooth radio. With the nRF52840 at the heart of your project, you'll be presented with a seemingly endless list of project-possibilities in an incredibly small package.

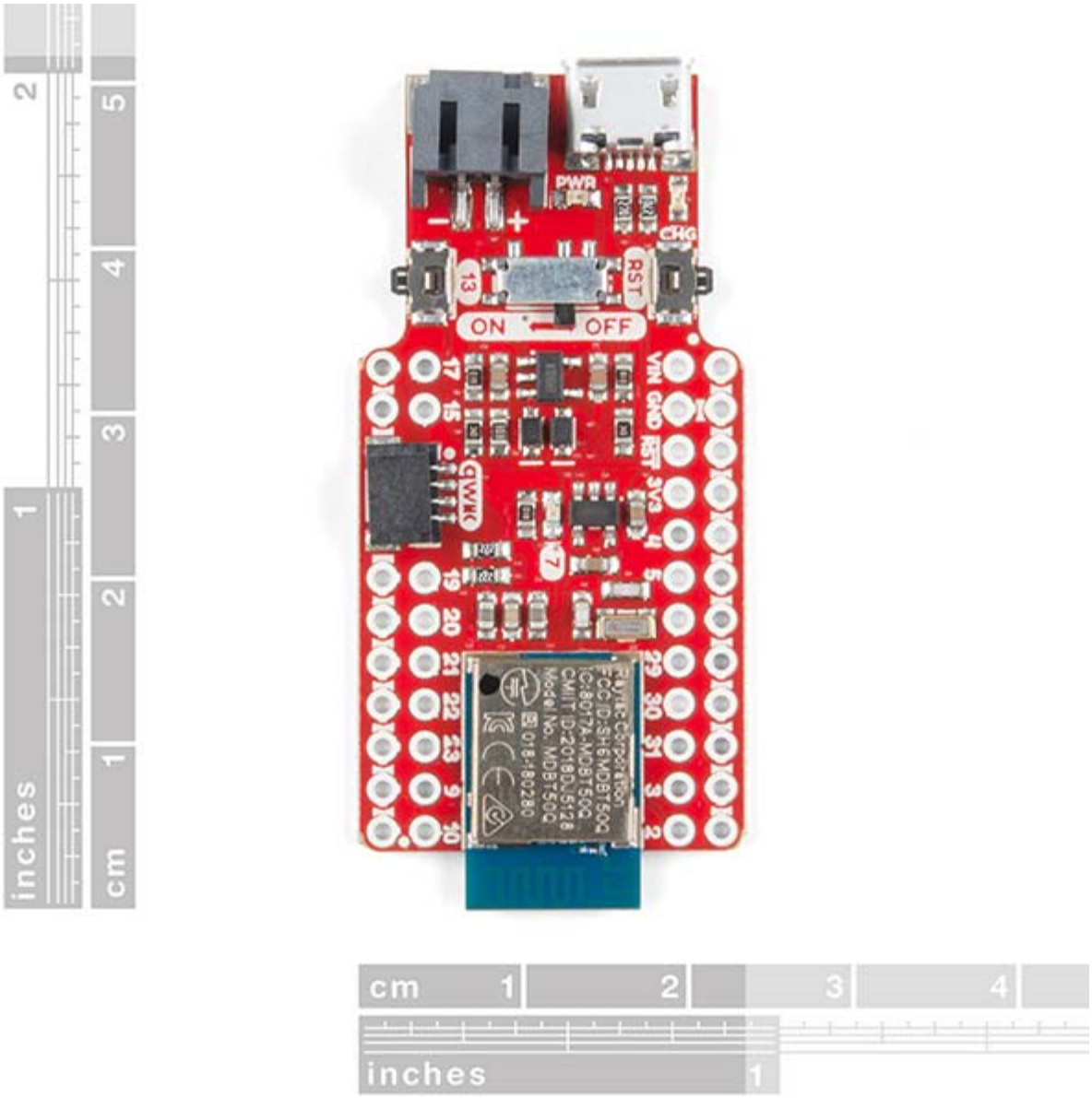
Our mini development board for the nRF52840 breaks out most of the critical I/O pins including GPIO and those needed for power while maintaining a small footprint that nearly matches that of the Arduino Pro Mini (except those covered by the Qwiic Connector). It features a USB interface (using the nRF52840's native USB support), which can be used to program, power, and communicate with the chip making it able to be used for any purpose (UART, I^2C, SPI) that those of the Arduino Pro Mini could. The Pro nRF52840 Mini features a Raytac MDBT50Q-P1M module. This module connects the nRF52840 to a trace antenna, fits the IC into an FCC-approved footprint, and also includes a lot of the decoupling and timing mechanisms that would otherwise be required for a bare nRF52840 design. Also included onboard is a LiPo battery charger, a Qwiic connector, an on/off switch, a reset switch, and a user LED/button.

The board comes pre-programmed with a USB bootloader. You can develop programs for the nRF52840's Cortex-M4 using either Arduino, Circuit Python, or C (using Nordic's nRF5 SDK), and load that compiled code using a USB serial or mass-storage interface.

FEATURES

- ARM Cortex-M4 CPU with floating point unit (FPU)
  - 1MB internal Flash – For all of your program, SoftDevice, and file-storage needs!
  - 256kB internal RAM – For your stack and heap storage.
- Integrated 2.4GHz radio with support for:
  - Bluetooth Low Energy (BLE) – With peripheral and/or central BLE device support
  - Bluetooth 5 – Mesh Bluetooth!
  - ANT – If you want to turn the device into a heart-rate or exercise monitor.
  - Nordic's proprietary RF protocol – If you want to communicate, securely, with other Nordic devices.
- Every I/O peripheral you could need
  - USB – Turn your nRF52840 into a USB mass-storage device, use a CDC (USB serial) interface, and more. This is a big add compared to the nRF52832!
  - UART – Serial interfaces with support for hardware flow-control if desired.
  - I^2C – Everyone's favorite 2-wire bi-directional bus interface
  - SPI – If you prefer the 3+-wire serial interface
  - Analog-to-digital converters (ADC) – Eight pins on the nRF52840 Mini Breakout support analog inputs
  - PWM – Timer support on any pin means PWM support for driving LEDs or servo motors.
  - Real-time clock (RTC) – Keep close track of seconds and milliseconds, also supports timed deep-sleep features.
- Peripheral-multiplexing – (Nearly) any pin can support any of the above features.




PWR
CHG
RST
ON
OFF
VIN
GND
RST
3V3
inches
cm