DEV-14812

RedBoard Turbo - SAMD21 Development Board

Description
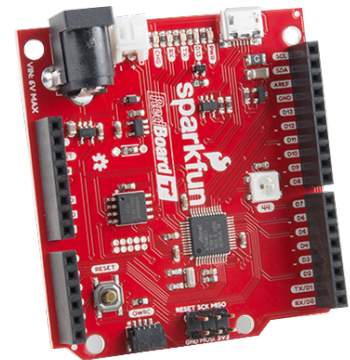
SparkFun DEV-14812 RedBoard Turbo - SAMD21 Development Board uses the ATSAMD21G18, which is an ARM Cortex M0+ 32-bit microcontroller that can run at up to 48MHz. This development board features 4MB of external flash memory and a UF2 (USB Flashing Format) bootloader. The RedBoard Turbo SAMD21 development board provides you with an economical and easy to use development platform providing more power than the classic RedBoard.

The RedBoard Turbo SAMD21 development board is equipped with a USB interface for programming and power, a Qwiic connector, an RTC crystal, WS2812-based addressable RGB LED, 600mA 3.3V regulator, and a variety of other components. This board offers several power options including a USB port via the micro-B port, a 5V tolerant barrel jack, or the built-in LiPo battery connector. Using the UF2 bootloader, the RedBoard Turbo is able to flash over to the Mass Storage Class (MSC) just like a removable flash drive. This bootloader is helpful as the RedBoard Turbo shows up on the computer as a USB storage device without having to install any drivers.

Features

- ATSAMD21G18 32-bit/48MHz ARM Cortex-M0+
- 4MB Flash Memory
- 32KB SRAM
- 32KB of EEPROM (emulated in Flash)
- 26 GPIO count
- 14 ADC channels at 12-bit resolution
- Analog-to-Digital and Digital-to-Analog Converters (ADC and DAC)
- Vin: 4.2V to 6V for charger - otherwise 3.5V to 6V
- VBATT: 3.7V Lipo
- VCC: 600mA @ 3.3V
- Arduino R3 layout
- Integrated USB controller
- RGB LED
- UF2 Bootloader
- Qwiic Connector

Mouser Part Number

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