Seeeduino Cortex-M0+

SKU 102010248

The Seeeduino Cortex-M0+ features an Atmel SAMD21 MCU which is fully compatible with Arduino Zero.

The Seeeduino Cortex-M0+ features an Atmel SAMD21 MCU which is based on a 32-bit ARM® Cortex®-M0+ processor. With the help of this powerful core, SAMD21 is much more powerful than AVR and can achieve many functions and more complex calculations that cannot be implemented on AVR chips.

The Seeeduino M0+ is a brand new product line that is fully compatible with Arduino Zero and we currently have Seeeduino Cortex-M0+ and Seeeduino Lotus Cortex-M0+ in this serial.

The Seeeduino Cortex-M0+ has the same header pinout as the Seeeduino Lotus Cortex-M0+, including 14 digital I/O (10 PWM output) and 6 analog I/O. On the meantime, it provides 3 on-board Grove connector: two I2C and 1 UART. If you want to use more grove port, you can use a Base Shield V2 to work with this board.

On top of that, Seeeduino Cortex-M0+ is the first Seeeduino development board with a USB type C interface. USB Type C is the future trend: the plugs are reversible, higher data transfer rate, and more scalable functions. We will introduce more development boards with Type C. You can use type C to supply power and transmit data or use the 7~15V DC jack to supply power for this board.

Features

- ARM Cortex-M0+ CPU running at up to 48MHz
- 256KB in-system self-programmable Flash
- 32KB SRAM Memory
- Compatible with Arduino Zero
- 10-bit, 350ksps Digital-to-Analog Converter (DAC)
- One 12-bit, 350ksps Analog-to-Digital Converter (ADC) with up to 20 channels
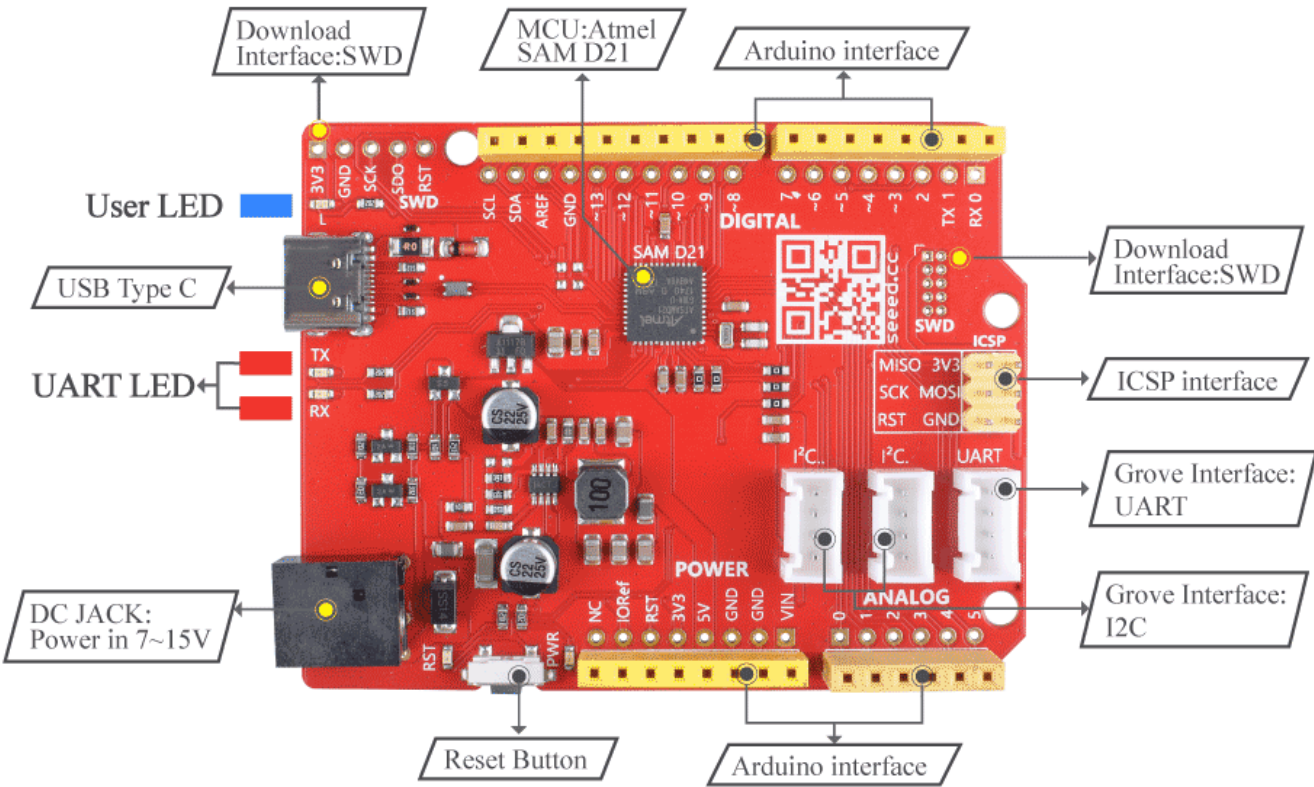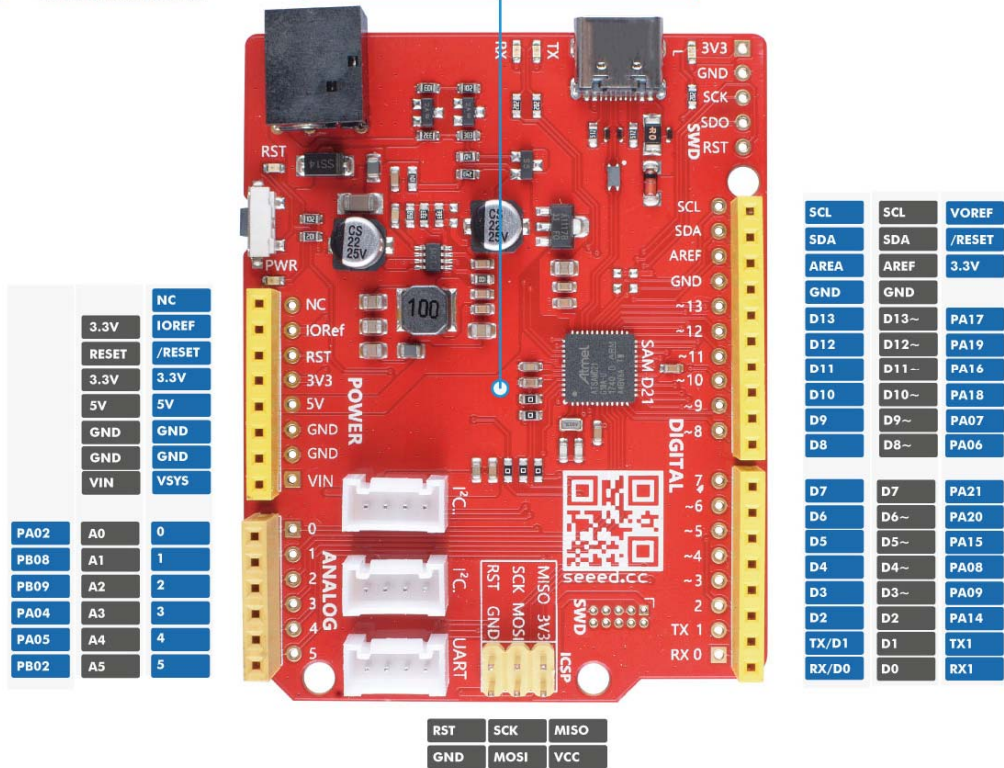- USB type C for power and data

Hardware Overview

Figure 1. *hardware overview*

Pinout

2. *Pinout*

ECCN/HTS

ECCN	EAR99
HSCODE	8517709000
USHSCODE	85177000
UPC	

Top board (front)

3V3 GND SCK SDO RST

SWD

SCL SDA AREF GND ~13 ~12 ~11 ~10 ~9 ~8 DIGITAL ~7 ~6 ~5 ~4 ~3 2 TX 1 RX 0

SAM D21

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SWD ICSP

TX RX

MISO 3V3
SCK MOSI
RST GND

CS 22 25V

CS 22 25V

100

I²C. I²C. UART

POWER

NC IORef RST 3V3 5V GND GND VIN

ANALOG
0 1 2 3 4 5

RST PWR

Bottom board (back)

RX 0 TX 1 2 ~3 ~4 ~5 ~6 7 ~8 ~9 ~10 ~11 ~12 ~13 GND AREF SDA SCL

DIGITAL

RST SDO SCK GND 3V3

SWD

V5V
D-
D+
GND

Seeeduino Cortex-M0+

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Designed by Seeed
Designer: Weifeng Zeng
www.seeedstudio.com

SWD

ICSP

3V3 MISO
MOSI SCK
GND RST

RX 23 SCL SCL
TX 22 SDA SDA
3V3 3V3 3V3
GND GND GND

ANALOG POWER
5 4 3 2 1 0 VIN GND GND 5V 3V3 RST IORef NC

DC 7-15V

https://www.seeedstudio.com/Seeeduino-Cortex-M0-p-4070.html/9-13-19