

XinaBox Datasheet CC03 - Cortex M0+ Core



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Overview

This xCHIP forms part of the core modules. The SAM D21 from Microchip Technology Inc is a low-power microcontroller using the 32-bit ARM® Cortex® -M0+ processor with up to 256 KB Flash and 32 KB of SRAM. This module is compatible with the Arduino platform due to the shared architecture with the Arduino M0.

Product Highlights

- ARM Cortex-M0+ Architecture
- 48 MHz
- 256 kB Flash
- 32 kB SRAM Memory
- SWD Debugging with IP03 Interface and Capable Programmer
- Low Power Idle and Standby Modes

Programming Notes

Arduino

See Getting Started with the CC03 for Arduino programming.

More info:

- Choose Arduino/Genuino Zero (Native Port)
- If you are using the IP02 to program your CC03, then these are the settings:
 - The A/B switch is in position B
 - The DTE/DCE switch is in position DCE
 - (If you battle reading the small print, both switches should be in the position closest to the USB port (away from the CC03))
- If you want to print to serial, the use Serial USB
 - You can add a line to your code at the top if your code already uses Serial everywhere:
`#define Serial SerialUSB`

Specifications

- Five 16-Bit Configurable Timers
- Three 24-Bit Timers/Counters
- 32-Bit Real Time Counter with Clock/Calendar Function
- Watchdog Timer
- CRC-32 Generator

External Links

Datasheet

- ATSAMD21G18 From Microchip Technology Inc. (<http://ww1.microchip.com/downloads/en/DeviceDoc/40001882A.pdf>)

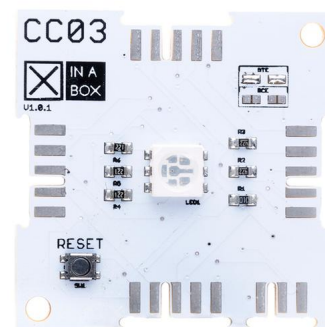
Shop

- Buy CC03 (<https://xinabox.cc/products/CC03>)

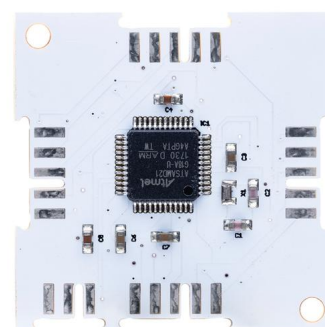
GitHub

- CC03 on GitHub (<https://github.com/xinabox/xCC03>)

CC03 - Cortex M0+ Core (ATSAMD21G18/SAMD21G/SAMD21)



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☑CHIP

Main Category	Core
Sub Category	CPU
Introduced	1 January 2017
Current version	1.0.0
Current version date	1 January 2017
Dimensions	
Size	2x2U (32x32mm)
Weight	2.9 g
Height	4.2/0/0 mm
Non-☑BUS Connections	
South	☑BUS & ☑PDI
Main Chip Set	
Main Chip	ATSAMD21G18
Architecture	ARM® Cortex®-M0+
Core Size	32 bit
Max. Frequency	48 MHz
Program Memory Size	256 kB Flash
RAM Memory Size	32 kB SRAM
I ² C Speed	100/400 kHz
Programmer Setting	
Programmer	IP03
Serial Configuration	
Default Setting	DTE
Change Setting	DCE
UART Configuration	
RXD	PA11
TXD	PA10

I ² C Configuration	
SDA	PA22
SCL	PA23
USB Configuration	
USB D+	PA25
USB D-	PA24
LED Configuration	
Red pin	PA16
Green pin	PA19
Blue Pin	PA17