

## Adafruit ATSAMD09 Breakout with seesaw

PRODUCT ID: 3657

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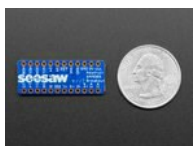
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[DESCRIPTION](#)

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## DESCRIPTION

Adafruit seesaw is a near-universal converter framework which allows you to add add and extend hardware support to any I2C-capable microcontroller or microcomputer. Instead of getting separate I2C GPIO expanders, ADCs, PWM drivers, etc, seesaw can be configured to give a wide range of capabilities.

For example, our ATSAMD09 breakout with seesaw gives you

- 3 x 12-bit ADC inputs
- 3 x 8-bit PWM outputs
- 7 x GPIO with selectable pullup or pulldown
- 1 x NeoPixel output (up to 340 pixels)
- 1 x EEPROM with 64 byte of NVM memory (handy for storing small access tokens or MAC addresses)

- 1 x Interrupt output that can be triggered by any of the accessories
- 2 x I2C address selection pins
- 1 x Activity LED

But you can reprogram and reconfigure the chip to have more or less of each peripheral - as long as it fits into the ATSAM09D14's firmware! For example, there's also a UART converter but it isn't included in the default firmware.

The ATSAM09 breakout is great for development of seesaw capabilities (we use it in-house for our design work) or you can use it as-is to give your Raspberry Pi or ESP8266 more hardware support! Each breakout comes with the assembled and tested board, as well as some header strips.

**Please note:** The boards do not come with a bootloader. If you want to do development on seesaw (e.g. changing the configuration) [you'll need to pick up a J-Link](#) and we recommend a [SWD adapter breakout](#). At this time our project is for Atmel Studio but you could probably get it working with arm gcc and a Makefile. We don't provide any support for custom builds of seesaw - we think this is cool and useful for the Maker community!

For more details including the documentation on how to use seesaw, libraries for Arduino/CircuitPython/Raspberry Pi Python, schematics, and more check out the [Adafruit seesaw guide](#)

## TECHNICAL DETAILS

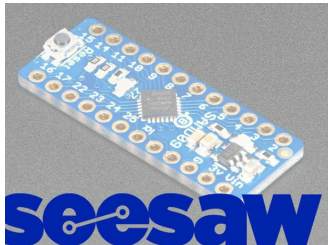
- Uses I2C address 0x49 - can be changed to 0x4A, 0x4B or 0x4C

Product Dimensions: 32.0mm x 12.0mm x 3.5mm / 1.3" x 0.5" x 0.1"

Product Weight: 1.6g / 0.1oz



## LEARN



[Adafruit seesaw](#)

An I2C to ... whatever! interface

## MAY WE ALSO SUGGEST...



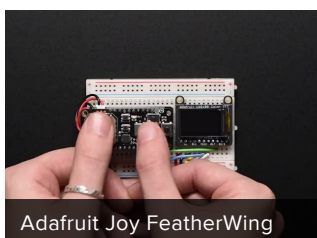
Adafruit FT232H Breakout -



ADS1015 12-Bit ADC - 4



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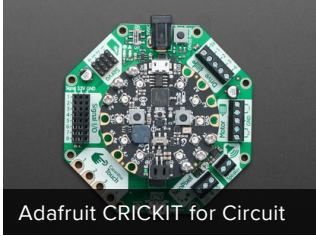
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can hear it coming" - [David Bowie](#)*

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