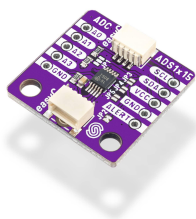


PRODUCT DATASHEET



ADC 16-bit ADS1115 4-Channel With PGA Breakout

333095

The ADS1115 is a 16-bit ADC with 4 channels and PGA, perfect for precise analog signal measurement in Arduino and Raspberry Pi projects.

Full product documentation, files and tutorials: solde.red/333095

CORE ATTRIBUTES

SKU 333095

WEIGHT 5 g

BARCODE 732388668601

DESCRIPTION

The ADS1115 16-Bit ADC delivers analog to digital conversion for precision measurement applications. This high-performance breakout board features Texas Instruments' industry-standard ADS1115 chip, providing 16-bit resolution at up to 860 samples per second with built-in programmable gain amplifier (PGA) for optimal signal conditioning. Perfect for Arduino, Raspberry Pi, and microcontroller projects requiring accurate analog signal measurement beyond standard 10-bit ADC capabilities.

With its wide 2V-5.5V supply range and I2C interface, the ADS1115 offers versatility for various measurement scenarios. The programmable gain amplifier provides selectable gains from $\pm 6.144V$ down to $\pm 0.256V$ full-scale range, enabling precise measurement of both large and small signals. Four single-ended channels can be configured as two differential pairs, while the built-in voltage reference ensures measurement stability. The qwiic connector system simplifies integration, eliminating wiring errors and enabling rapid prototyping for sensor networks, data acquisition systems, and precision measurement applications.

Applicable for sensor networks, building data acquisition systems, or upgrading Arduino projects with analog measurement capabilities, the ADS1115 provides the accuracy and reliability. With comprehensive documentation and professional EU manufacturing quality, this ADC module delivers precision in a maker-friendly package. With our extensive Arduino library, you can get started quickly, without soldering, using our Qwiic connector.

TECHNICAL DETAILS

- **Voltage:** 3.3V
- **Resolution:** 16-bit
- **Number of channels:** 4
- I2C communication
- **Dimensions:** 22 × 22 mm / 0.9 × 0.9 inch

SPECIFICATIONS

INTERFACE	I2C
QWIIC COMPATIBLE	Yes
I2C ADDRESS DEFAULT	0x48
I2C ADDRESS CHANGEABLE	Yes
BREADBOARD COMPATIBLE	Yes
MEASUREMENT TYPES	Voltage
MEASUREMENT ACCURACY	16-bit ADC resolution
IC PART NUMBER	ADS1115
SUPPLY VOLTAGE MIN V	3.3
SUPPLY VOLTAGE MAX V	3.3
LOGIC LEVEL	3V3 Only
OPERATING CURRENT (mA)	0.15 mA

LINKS

Arduino Library	https://github.com/SolderedElectronics/Soldered-ADS1015-ADS1115-ADC-Arduino-Library
Open Source Hardware Files	https://github.com/SolderedElectronics/ADC-16-bit-ADS1115-4-channel-with-PGA-breakout-hardware-design
Full Documentation	https://docs.soldered.com/adc/overview/
Arduino: Get Started	https://docs.soldered.com/ltr-507/arduino/getting-started/
Hardware Details	https://docs.soldered.com/adc/hardware/
Arduino Library Documentation	https://docs.soldered.com/adc/arduino/init-and-simple-read/
Pinout	https://cms.soldered.com/products/333095/media/333095_pinout-png_99e8d9.svg

GALLERY

