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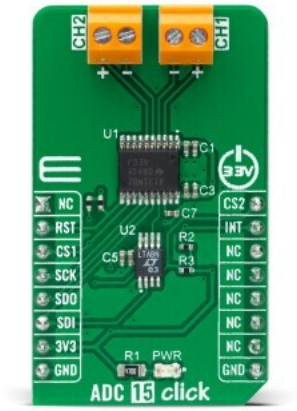
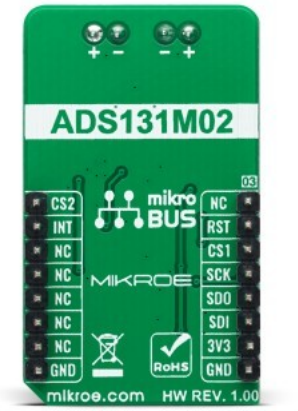
ADC 15 Click





PID: MIKROE-4890

ADC 15 Click is a compact add-on board that contains a high-performance data converter. This board features the ADS131M02, a two-channel, simultaneously sampling, 24-bit, delta-sigma (ΔΣ), analog-to-digital converter from Texas Instruments. The ADC inputs can be independently configured via serial peripheral interface depending on the sensor input. A low noise, programmable gain amplifier (PGA) provides gains ranging from 1 to 128 to amplify low-level signals. Additionally, this ADC integrates channel-to-channel phase, offset and gain calibration registers to help remove signal-chain errors alongside a low-drift, 1.2V integrated reference. This Click board™ offers a wide dynamic range, low power, and energy-measurement-specific features, making the device an excellent fit for energy metering, power metrology, and circuit breaker applications.

ADC 15 Click is supported by a mikroSDK compliant library, which includes functions that simplify software development. This Click board™ comes as a fully tested product, ready to be used on a system equipped with the mikroBUS™ socket.

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Specifications

Type	ADC
Applications	Can be used for energy metering, power metrology, and circuit breaker applications
On-board modules	ADS131M02 - low-power, two-channel, simultaneously sampling, 24-bit, delta-sigma (ΔΣ) analog-to-digital converter (ADC) with a low-drift internal reference voltage from Texas Instruments
Key Features	Two simultaneously sampling differential inputs, programmable gain and data rate, integrated negative charge pump allows input signals below ground, wide dynamic range, low power, and energy-measurement-specific features, and many more
Interface	SPI
ClickID	No
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V

Resources

mikroBUS™

mikroSDK

Click board™ Catalog

Click boards™

Downloads

ADC 15 click schematic

ADC 15 click 2D and 3D files

LTC6903 datasheet

ADS131M02 datasheet

ADC 15 click example on Libstock