

# ADC 16 Click



PID: MIKROE-4937

**ADC 16 Click** is a compact add-on board that contains a high-performance data converter. This board features the [ADS7142-Q1](#), a low-power two-channel 12-bit analog-to-digital converter from [Texas Instruments](#). This I2C configurable 140kSPS successive approximation register (SAR) analog-to-digital converter (ADC) can autonomously monitor signals while maximizing system power, reliability, and performance. It implements event-triggered interrupts per channel using a digital window comparator with programmable high and low thresholds, hysteresis, and event counter. This Click board™ offers high accuracy solution for the most demanding applications, from general-purpose monitoring applications (voltage, current, and temperature) to portable consumer electronics and more.

ADC 16 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.

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.



ISO 27001: 2013 certification of informational security management system.  
ISO 14001: 2015 certification of environmental management system.  
OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).

## Specifications

Type	ADC
Applications	Can be used from general-purpose monitoring applications (voltage, current, and temperature) to portable consumer electronics and more
On-board modules	ADS7142-Q1 - high-performance two-channel analog-to-digital converter (ADC) from Texas Instruments
Key Features	Two single-ended channels/One single-ended channel with remote ground sensing/One pseudo-differential channel, low power consumption, 12-bit noise-free resolution, 140kSPS sampling rate, efficient host sleep and wake-up feature, false trigger prevention, and more
Interface	I2C
ClickID	No
Compatibility	mikroBUS
Click board size	S (28.6 x 25.4 mm)
Input Voltage	3.3V

## Resources

[mikroBUS™](#)
[mikroSDK](#)
[Click board™ Catalog](#)
[Click Boards™](#)

## Downloads

[ADC 16 click example on Libstock](#)
[ADC 16 click 2D and 3D files](#)
[ADS7142-Q1 datasheet](#)
[ADC 16 click schematic](#)

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.



ISO 27001: 2013 certification of informational security management system.  
ISO 14001: 2015 certification of environmental management system.  
OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).