

## RTD 2 Click



PID: MIKROE-4282

RTD 2 Click is a compact add-on board used for applications with resistive elements that change resistance over temperature. This board features the ADS1247, 24-bit analog-to-digital converter with a programmable gain amplifier (PGA) for sensor measurement applications from Texas Instruments. It features a precision delta-sigma ( $\Delta\Sigma$ ) ADC with a single-cycle settling digital filter, and an internal oscillator, but also provides a low-drift voltage reference, and two matched programmable excitation current sources (IDACs). Besides, an input multiplexer integrates sensor burn-out detection, voltage bias for thermocouples, system monitoring, and general-purpose digital I/Os. This Click board™ is suitable for temperature sensor measurements such as RTDs, thermocouples, and thermistors, for pressure measurements, flow meters, factory automation, and process control, and many more.

RTD 2 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	Temperature & humidity
Applications	Can be used for temperature sensor measurements such as RTDs, thermocouples, and thermistors, for pressure measurements, flow meters, factory automation, and process control, and many more.
On-board modules	RTD 2 Click is based on the ADS1247, a highly integrated 24-bit data converters with a programmable gain amplifier (PGA) for sensor measurement applications from Texas Instruments.
Key Features	Programmable Data Rates, 50/60 Hz rejection, excitation current sources (iDACs), GPIO, PGA, internal temperature sensor, self and system calibration, and 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

[ADS1247 datasheet](#)

[RTD 2 click schematic](#)

[RTD 2 click 2D and 3D files](#)

[RTD 2 click example on Libstock](#)

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