

Time-saving embedded tools

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Wheatstone Click





PID: MIKROE-4124

Wheatstone Click is a measurement Click board[™] which utilizes a Wheatstone bridge circuit onboard, in order to precisely measure the resistance of an external element. Besides the wheatstone bridge circuit, this Click board[™] also utilizes <u>MAX4208</u> – an ultra-low offset/drift, precision instrumentation amplifier, from <u>Analog Devices</u>. Having features such as Spread-Spectrum, Auto-Zero, Low Offset Voltage Drift and more makes the mentioned IC ideal for accurate detection of very small voltage changes and conversion into a digital form. Having these features in mind, Wheatstone click is ideal for using in various applications which may include sensor readings and precise resistance measurements.

Wheatstone 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).



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Specifications

Туре	Measurements
Applications	Wheatstone click is ideal for using in various applications which may include sensor readings and precise resistance measurements.
On-board modules	MAX4208 – an ultra-low offset/drift, precision instrumentation amplifier, from Maxim Integrated TPL0501 onboard - 256-Taps, Single-Channel, Digital Potentiometer With SPI Interface, from texas instruments
Key Features	ultra-low offset/drift, Spread-Spectrum, Auto- Zero, Low Offset Voltage Drift and more
Interface	Analog,SPI
ClickID	No
Compatibility	mikroBUS
Click board size	L (57.15 x 25.4 mm)
Input Voltage	3.3V or 5V

Resources

<u>mikroBUS</u>™

<u>mikroSDK</u>

Click board[™] Catalog

Click Boards[™]

Downloads

Wheatstone click 2D and 3D files

TPL0501 datasheet

MAX4208 datasheet

Wheatstone click example on Libstock

Wheatstone click schematic

Wheatstone click schematic

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