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GainAMP 3 Click

PID: MIKROE-4800

GainAMP 3 Click is a compact add-on board that contains a 4-channel programmable gain amplifier. This board features the ADA4254, a zero drift, high voltage, programmable gain instrumentation amplifier from Analog Devices. It features 12 binary weighted gains and three scaling gain options resulting in 36 possible gain settings. It comes with an input multiplexer providing ±60V protection to the high impedance inputs of the amplifier and an excitation current source output available to bias sensors such as resistance temperature detectors (RTDs). The ADA4254 zero-drift amplifier topology self-calibrates DC errors and low-frequency noise, achieving excellent DC precision over the entire specified temperature range, maximizing dynamic range, and significantly reducing calibration requirements in many applications. This Click board™ represents a perfect choice for industrial systems and process control that demand precision, robustness, and low power, thanks to its low power consumption.

GainAMP 3 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.

Specifications

Type	Amplifier
Applications	Can be used for industrial systems and process control that demand precision, robustness, and low power, thanks to its low power consumption
On-board modules	ADA4254 - zero drift, high voltage, programmable gain instrumentation amplifier (PGIA) designed for process control and industrial applications from Analog Devices
Key Features	Low power consumption, optimized for ADC synchronization, 12 binary steps and 3 scaling gains, ±60V protection input mux, excellent DC precision, and more
Interface	SPI
ClickID	No
Compatibility	mikroBUS
Click board size	L (57.15 x 25.4 mm)
Input Voltage	3.3V or 5V,External

Resources

mikroBUS™

mikroSDK

Click board™ Catalog

Click boards™

Downloads

GainAMP 3 click example on Libstock

GainAMP 3 click 2D and 3D files

GainAMP 3 click schematic

ADA4254 datasheet