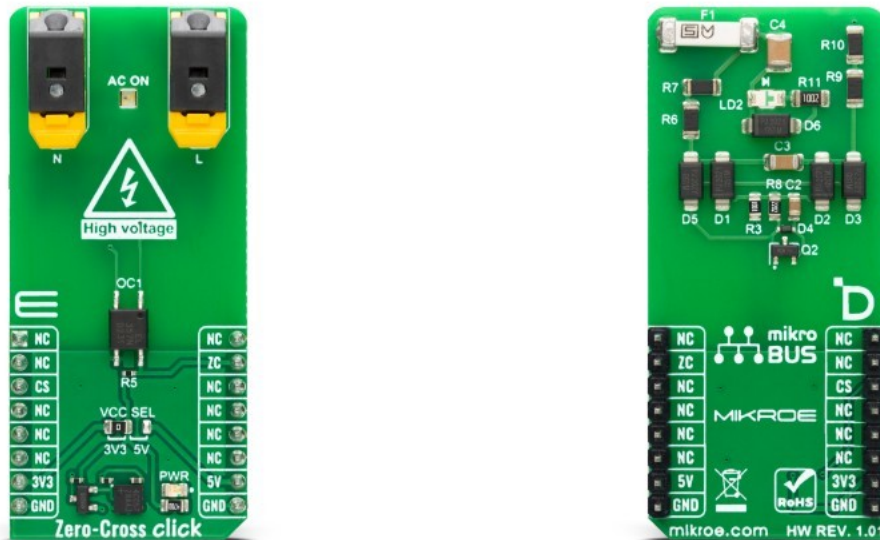


Zero-Cross Click



PID: MIKROE-5760

Zero-Cross Click is a compact add-on board that has the ability to detect the change from positive to negative or negative to a positive level of a sinusoidal waveform. This board features circuitry that provides Zero Crossing Detection (ZCD). Whenever the sine wave crosses the ground potential, the output shifts from HIGH logic to LOW or vice-versa. The waveform depends on the frequency, but the output is a square wave, so a Zero-Crossing detection circuit is also called a square wave generator circuit. This Click board™ makes the perfect solution for the development of frequency counters, phase meters, time maker generators, and more.

Zero-Cross 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	Optocoupler
Applications	Can be used for the development of frequency counters, phase meters, time-maker generators, and more
On-board modules	The circuitry that provides Zero Crossing Detection (ZCD)
Key Features	Square wave generator circuit, alternate current presence, zero crossing detection from positive to negative, and from negative to positive, block terminals for connecting high voltages, and more
Interface	GPIO
ClickID	Yes
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

[Zero-Cross click example on Libstock](#)

[EL357N-G datasheet](#)

[BC817-25LT3G datasheet](#)

[1N4148WT datasheet](#)

[Zero-Cross click 2D and 3D files](#)

[Zero-Cross click schematic](#)

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