

## Compass 3 Click



PID: MIKROE-4063

**Compass 3 Click** is an expansion board that can measure the three-axis magnetic field which is perfect for implementation in applications such as electric compasses. This board features [MMC5883MA](#), a complete 3-axis magnetic sensor with signal processing from [MEMSIC](#). For obtaining the sensor measurement data of the magnetic field and temperature, an I2C protocol is used. Main feature of the sensor is the capability to measure magnetic fields within the full scale range of 8Gauss (G), with 0.25mG per LSB resolution at 16bits operation mode and 0.4mG total RMS noise level, enabling heading accuracy of 1° in electronic compass applications. Compass 3 Click is suitable for applications such as electrical compass, position sensing, general magnetic field measurement and more.

Compass 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.

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	Compass,Magnetic
Applications	Can be used in electronic compass and navigation, position sensing or general purpose magnetic field measurements.
On-board modules	Compass 3 Click uses the MMC5883MA IC, a complete 3-axis magnetic sensor with on-chip signal processing, from Memsic Inc.
Key Features	Measuring of magnetic field within the full scale range of $\pm 8$ Gauss (G), 16bits resolution, 0.25mG per LSB sensitivity, heading accuracy of $\pm 1^\circ$
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

[MMC5883MA datasheet](#)

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

[Compass 3 click schematic](#)

[Compass 3 click example on Libstock](#)

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