

# 9DOF 2 Click



PID: MIKROE-4128

**9DOF 2 Click** is a compact add-on board for applications which require lowest power motion tracking and magnetometer functionality. This board features the [ICM-20948](#) a 9-axis MotionTracking™ sensor from TDK InvenSense, which consist of two sensors combined into one package for universal 9DOF solution. In this package we have 3-axis gyroscope, a 3-axis accelerometer, 3-axis magnetometer, combined with Digital Motion Processor™ (DMP) and run-time calibration firmware. All this features makes 9DOF 2 Click excellent choice for manufacturers looking for a product to eliminate the costly and complex selection, qualification, and system level integration of discrete devices, guaranteeing optimal motion performance for consumers. Its also ideally suited for wearable sensors and IoT applications needed low power motion tracking device expandable with additional I2C sensors.

9DOF 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	Gyroscope,Magnetic,Motion
Applications	Can be used for Smartphones and Tablets, wearable sensors and IoT Applications.
On-board modules	9DOF 2 Click uses the ICM-20948 IC, the world's lowest power 9-axis MotionTracking device, from TDK Invensense.
Key Features	Mobile phones, tablet PCs, GPS systems, Smart watches, Sport and fitness devices, and many more.
Interface	SPI
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

[9DOF 2 click example on Libstock](#)

[TXB0108 datasheet](#)

[ICM-20948 datasheet](#)

[9DOF 2 click 2D and 3D files](#)

[9DOF 2 click schematic](#)

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