

## 6DOF IMU 5 Click



PID: MIKROE-4089

**6DOF IMU 5 Click** features 7-Axis [ICM-20789](#) chip from [TDK](#), an integrated 6-axis inertial device that combines a 3-axis gyroscope, 3-axis accelerometer, and an ultra-low noise MEMS capacitive pressure sensor. This unique 7-Axis device offers great performance with an accuracy of  $\pm 1$  Pa, an accuracy enabling altitude measurement differentials as small as 8.5 cm. The pressure sensor's MEMS capacitive architecture provides the industry's lowest noise at the lowest power, high sensor throughput, and temperature coefficient offset of  $\pm 0.5$  Pa/ $^{\circ}$ C. The combination of high accuracy elevation measurements, low power, and temperature stability makes it ideal for a wide range of motion tracking applications.

6DOF IMU 5 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	Motion
Applications	Drones and Flying Toys, Motion-based gaming controllers, Virtual Reality Headsets & Controllers, Indoor/Outdoor Navigation (dead-reckoning, floor/elevation/step detection)
On-board modules	6DOF IMU 5 Click uses the ICM-20789 IC, a 6-axis inertial sensor, from TDK InvenSense
Key Features	Pressure operating range: 30 to 110 kPa, Pressure Sensor Relative Accuracy: $\pm 1$ Pa, Gyroscope programmable FSR, Accelerometer with Programmable FSR and many more
Interface	I2C,SPI
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V

## Resources

[mikroBUS™ Standard specification](#)

[LibStock: mikroSDK](#)

[Click board catalog](#)

[Click boards™ Standard Page](#)

## Downloads

[6DOF IMU 5 click example on Libstock](#)

[6DOF IMU 5 click 2D and 3D files](#)

[ICM-20789 datasheet](#)

[6DOF IMU 5 click schematic](#)

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