

6DOF IMU 16 Click



PID: MIKROE-6040

6DOF IMU 16 Click is a compact add-on board with a 6-axis inertial measurement device. This board features the [ICM-45605](#), an ultra-high-performance 6-axis MEMS IMU with the world's first BalancedGyro™ technology and the lowest power consumption from [TDK InvenSense](#). The ICM-45605's on-chip digital motion processor enables advanced motion algorithms and machine learning capability. This Click board™ makes the perfect solution for the development of portable devices, augmented and virtual reality headsets and controllers, wearable/hearable, IoT applications, and more.

6DOF IMU 16 Click is fully compatible with the mikroBUS™ socket and can be used on any host system supporting the [mikroBUS™](#) standard. It comes with the [mikroSDK](#) open-source libraries, offering unparalleled flexibility for evaluation and customization. What sets this [Click board™](#) apart is the groundbreaking [ClickID](#) feature, enabling your host system to seamlessly and automatically detect and identify this add-on board.

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	Can be used for the development of portable devices, augmented and virtual reality headsets and controllers, IoT applications, and more
On-board modules	ICM-45605 - 6-axis MEMS IMU with the world's first BalancedGyro™ technology from TDK InvenSense
Key Features	Gyroscope and accelerometer sensors in 6-axis, low gyroscope and accelerometer noise, low power consumption, user-programmable digital filters for gyroscope, accelerometer and temperature sensor, APEX functions, user-selectable full-scale ranges for both gyroscope and accelerometer and more
Interface	I2C,SPI
ClickID	Yes
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

[6DOF IMU 16 click example on Libstock](#)

[6DOF IMU 16 Click schematic](#)

[6DOF IMU 16 click 2D and 3D files](#)

[ICM-45605 datasheet](#)

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