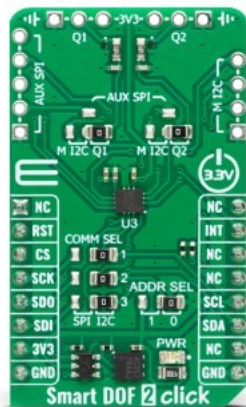


Smart DOF 2 Click



PID: MIKROE-5672

Smart DOF 2 Click is a compact add-on board with a highly advanced integrated 6-axis IMU measurement unit. This board features the [LSM6DSV16XTR](#), a high-performance 6-axis IMU with sensor fusion, ASC, MLC, Qvar, and OIS/EIS paths from [STMicroelectronics](#). The IMU unit features an accelerometer and gyroscope that can be turned off independently of each other, still allowed to have different ODRs and power modes. The unit can be configured as a finite state machine (FSM), machine learning core (MLC), and Qvar sensing. This Click board™ makes the perfect solution for the development of motion tracking, and gesture detection, augmented reality, indoor navigation, IoT devices, EIS, and OIS for camera applications, and more.

Smart DOF 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	Acceleration,Gyroscope,Motion
Applications	Can be used for the development of motion tracking, and gesture detection, augmented reality, indoor navigation, IoT devices, EIS, and OIS for camera applications, and more
On-board modules	LSM6DSV16XTR - high-performance 6-axis IMU from STMicroelectronics
Key Features	Triple core for UI, EIS, and OIS data processing, power consumption for both accelerometer and gyroscope, smart FIFO up to 4.5KB, selectable interface, auxiliary SPI for OIS data output for gyroscope and accelerometer, machine learning core with exportable features and filters for AI applications, embedded sensor fusion, ASC, MLC, Qvar, OIS/EIS paths, and more
Interface	I2C,SPI
ClickID	Yes
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V

Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click boards™](#)

[ClickID](#)

Downloads

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

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

[Smart DOF 2 click schematic](#)

[LSM6DSV16X datasheet](#)

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