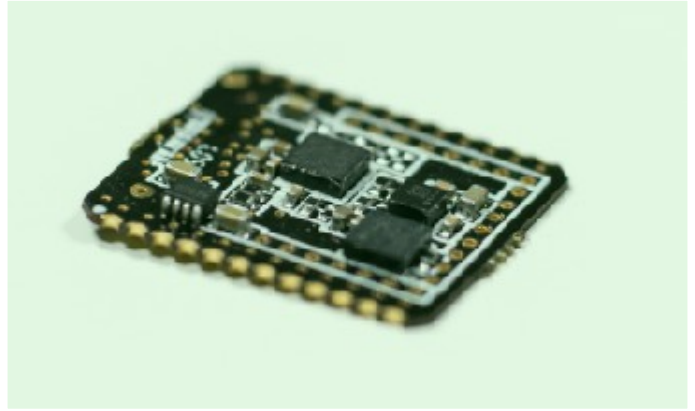
Aistin Owl Swoop
Motion Add-on Board (MOT212)

MOT212 Add-on Board – the Aistin Owl Swoop – is the choice for your need to measure motion in various ways. It has integrated accelerometer, magnetometer and gyroscope. When attached to an Aistin Host Board (e.g. CPU2x2, BUB212, BUQ212 and BTL2x2) you can easily detect movement, vibrations, touches, object position and orientation, falling, and other movements, just to name some.

MOT212 is perfect for movement monitoring and tracking. It can also be used as a compass. But these are just few suggestions. When combined with different Host and Add-on Boards from the Aistin Family, even the sky is not the limit for your own innovative creations!

Technical Overview



Dimensions: 16 x 17.5 mm², PCB 0,6 mm

Aistin Bus24 Add-on Connector*

3-axis Accelerometer

3-axis Magnetometer

3-axis Gyroscope

*iprotoxi.fi/index.php/aistin-bus24

MOT212

Technical Details

MOT212 is an Aistin Add-on Board which is equipped with a 3-axis digital accelerometer, a 3-axis magnetometer, and a 3-axis gyroscope. Specific sensor details are described in the table below.

	MOT 211
3-axis Accelerometer (LIS3DSH)	±2g/±4g/±6g/±8g/±16g dynamically selectable full-scale range
3-axis Magnetometer (LIS3MDL)	±4/ ±8/ ±12/ ±16 gauss selectable magnetic full scale
3-axis Gyroscope (L3GD20H)	±245/±500/±2000 dps selectable full scale

The 3-axis accelerometer has dynamically selectable full scale range of ±2g/±4g/±6g/±8g/ ±16g. It has a programmable embedded state machine, embedded temperature sensor, embedded self-test and embedded FIFO. The device can be configured to generate interrupt signals activated by user defined motion patterns.

The 3-axis magnetometer has a selectable full scale of ±4/±8/±12/±16 gauss. It has continuous and single conversion modes, interrupt generator and self-test. The device may be configured to generate interrupt signals for magnetic field detection.

The 3-axis gyroscope has a selectable full scale of ±245/±500/±2000 dps and is capable measuring rates with a user selectable bandwidth. It has an embedded power down, which includes a sleep mode and fast turn-on and wake-up. It includes a sensing element and an IC interface able to provide the measured angular rate to the external world through digital interface.

Aistin Bus24 Signal Chart