

Adafruit ISM330DHCX 6-DoF IMU Sensor

Type

6-DoF IMU (accelerometer + gyroscope on a single silicon die)

Accelerometer range: ± 2 / ± 4 / ± 8 / ± 16 g

Gyroscope range: ± 125 / ± 250 / ± 500 / ± 1000 / ± 2000 / ± 4000 DPS

Output: Digital (SPI or I2C)

Performance

Refresh rate (accelerometer): 1.6 Hz – 6.7 kHz

Refresh rate (gyroscope): 12.5 Hz – 6.7 kHz

Operating temperature: -40 °C to +105 °C

Power & Logic

Max supply voltage: 5 V

Compatible with 3.3 V and 5 V logic

Connectivity

SPI and I2C interfaces (two configurable breakout pins)

External I2C/SPI port for additional devices

STEMMA QT / Qwiic connector (no soldering required)

Built-in Features

Tip detection, activity detection, pedometer

Programmable finite state machine / machine learning core for basic gesture recognition