

Motion Control Products

... at the right price

• BL-IM8A : Inertial Measurement Unit (Orientation Sensor)

Features

- Small size, weight and power
- Ultra stable over temperature and time
- Operational temperature: -30 C to +85 C
- ST L3G4200D MEMs rate sensor (gyro)
- ST LSM303DLH for Acc. and Mag.
- ARM7 processor for control and I/O
- Gyro rate range: +/- 250 / 500 / 2000 dps
- Gyro filters:
 - ✓ Low pass
 - ✓ High pass (programmable)
 - ✓ Kalman (programmable)
 - ✓ Rolling average (programmable)
- Accelerometer:
 - ✓ +/- 2 , 4 or 8 g
- Accelerometer filters:
 - ✓ High pass (programmable)
 - ✓ Kalman (programmable)
 - ✓ Rolling average (programmable)
- Magnetometer:
 - ✓ From +/- 1.3 to +/- 8.1 gauss
 - ✓ +/- 1 degree compass heading
 - ✓ Rolling average filter
- x 8 PWM inputs
- x 8 PWM outputs (8 axis data)
- x 1 I2C digital output
- x 1 SPI digital output
- EEPROM for parameter storage
- Support for many applications
- Input voltage (20v to 5v, or down to 3.3v)
- LED display to show operational status
- Factory calibrated
- RoHS, "green" compliant

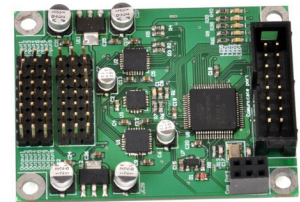
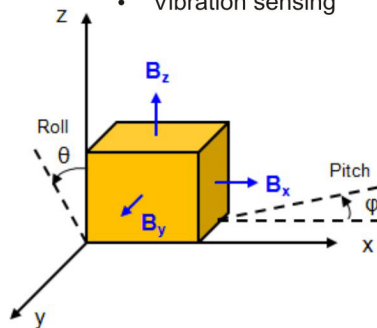
PCB build spec options:

- Gyro (3 axis) + Acc (3 axis) x 1 + Mag (2 axis) x 1
- Gyro (3 axis) + Acc (3 axis) x 2 + Mag (2 axis) x 2
- Sensor + controller also available (BL-IM8AC)

○ Gyro + Accelerometer + Magnetometer

○ Applications

- Robotics Control
- Industrial control PLC systems
- Gaming / Virtual Reality input devices
- Aircraft / UAV / Helicopter stabilization and attitude control
- Navigation solutions
- Platform stabilization
- Vibration sensing



○ PC tool

- Easy to use s/w for user programming
- Graphical real-time data monitoring

○ Size, Power and Weight

- 60 x 45 mm PCB
- 90mA when in operation
- Weight is 19g



BL-IM8A

The BL-IM8A is a MEMS based orientation sensor for full 8 axis sensing. Incorporating a gyro for fast rate measurement, an accelerometer for inclination measurement with respect to gravity, and a magnetometer for absolute direction measurement. Outputs are the raw or filtered data measurement signals.

The BL-IM8A is highly programmable, with easy to use software to cover just about all foreseeable application requirements.

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