The LORD Sensing 3DM-CX5 family of high-performance, industrial-grade, board-level inertial sensors provides a wide range of triaxial inertial measurements, computed attitude, and navigation solutions.

In all models, the Inertial Measurement Unit (IMU) includes direct measurement of acceleration and angular rate, and is fully temperature-compensated and calibrated over the operating temperature range. The use of Micro-Electro-Mechanical System (MEMS) technology allows for highly accurate, small, lightweight devices.

SensorConnect software is a user friendly program for device configuration. MIP Monitor (MicroStrain Internet Protocol) can also be used. Both packages provide for device configuration, live data monitoring, and recording. Alternatively, the MIP Data Communications Protocol is available for development of custom interfaces and easy OEM integration.

The sensor operates independent of computer platform, operating system, or coding language.

**PRODUCT HIGHLIGHTS**

- Triaxial accelerometer, gyroscope, temperature sensors achieve the optimal combination of measurement qualities
- Smallest, lightest, highest performance IMU in its class

**FEATURES AND BENEFITS**

**BEST IN CLASS PERFORMANCE**

- Fully calibrated, temperature-compensated, and mathematically-aligned to an orthogonal coordinate system for highly accurate outputs
- High-performance, low-drift gyros with low noise density and vibration rectification error.
- Accelerometer noise as low as 20 μg/√Hz

**EASE OF USE**

- SensorConnect enables simple device configuration, live data monitoring and recording.
- Optional hardware communications-development kit available.
- The MSCL API allows easy integration with C++, Python, .NET, C#, Visual Basic, LabVIEW and MATLAB environments.
- MIP open byte level communication protocol

**COST EFFECTIVE**

- Out-of-the-box solution reduces development time
- Volume discounts

**APPLICATIONS**

- Unmanned vehicles
- Robotics
- Platform stabilization, artificial horizon
- Health and usage monitoring of vehicles

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**Dimensions:**

- 38.1 mm [1.50 in]
- 9.65 mm [0.38 in]
- 23.87 mm [0.94 in]
# Specifications

<table>
<thead>
<tr>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated sensors</td>
</tr>
<tr>
<td>Data outputs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inertial Measurement Unit (IMU) Sensor Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accelerometer</strong></td>
</tr>
<tr>
<td>Measurement range</td>
</tr>
<tr>
<td>Non-linearity</td>
</tr>
<tr>
<td>Resolution</td>
</tr>
<tr>
<td>Bias instability</td>
</tr>
<tr>
<td>Initial bias error</td>
</tr>
<tr>
<td>Scale factor stability</td>
</tr>
<tr>
<td>Noise density</td>
</tr>
<tr>
<td>Alignment error</td>
</tr>
<tr>
<td>Adjustable bandwidth</td>
</tr>
<tr>
<td>Offset error over temperature</td>
</tr>
<tr>
<td>Gain error over temperature</td>
</tr>
<tr>
<td>Scale factor non-linearity ( @ 25°C)</td>
</tr>
<tr>
<td>Vibration induced noise</td>
</tr>
<tr>
<td>Vibration rectification error (VRE)</td>
</tr>
</tbody>
</table>

**IMU filtering**
- Digital sigma-delta wide band anti-aliasing filter to digital averaging filter (user adjustable) scaled into physical units.

**Sampling rate**
- 1 kHz
- 4 kHz

**IMU data output rate**
- 1 Hz to 1000 Hz

<table>
<thead>
<tr>
<th>Operating Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
</tr>
<tr>
<td>Power source</td>
</tr>
<tr>
<td>Power consumption</td>
</tr>
<tr>
<td>Operating temperature</td>
</tr>
<tr>
<td>Mechanical shock limit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
</tr>
<tr>
<td>Weight</td>
</tr>
<tr>
<td>Enclosure material</td>
</tr>
<tr>
<td>MTBF</td>
</tr>
<tr>
<td>Regulatory compliance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectors</td>
</tr>
<tr>
<td>Software</td>
</tr>
<tr>
<td>Data Communications Protocol (DCP)</td>
</tr>
<tr>
<td>Software development kit (SDK)</td>
</tr>
<tr>
<td>Hardware development kit</td>
</tr>
</tbody>
</table>