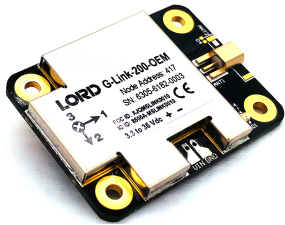# G-Link®-200-OEM

Wireless Accelerometer Node

G-Link®-200-OEM - *high-speed triaxial accelerometer node*

LORD Sensing Wireless Sensor Networks enable simultaneous, high-speed sensing and data aggregation from scalable sensor networks. Our wireless sensing systems are ideal for test and measurement, remote monitoring, system performance analysis, and embedded applications.

The G-Link-200-OEM has an on-board triaxial accelerometer that allows high-resolution data acquisition with extremely low noise and drift. Additionally, derived vibration parameters allow for long-term monitoring of key performance indicators while maximizing battery life.

Users can easily program nodes for continuous, periodic burst, or event-triggered sampling with the SensorConnect software. The optional web-based SensorCloud interface optimizes data aggregation, analysis, presentation, and alerts for sensor data from remote networks.

Product Highlights

- On-board triaxial accelerometer with ±2 to ±40 *g* measurement range
- Continuous, periodic burst, and event-triggered sampling
- Output raw acceleration waveform data or derived vibration parameters (Velocity, Amplitude, Crest Factor)
- 1 Sample per hour to 4096 Samples per second
- Wide input voltage from 3.3 to 36 V

Features and Benefits

High Performance
- Extremely low noise on all axis 25 µ*g*/√Hz or 80 µ*g*/√Hz
- High accuracy temperature sensor ±0.25 °C
- Wireless range up to 2 km (800 m typical)
- Datalog up to 8 million data points

Ease of Use
- End-to-End wireless sensing solution reduces development and deployment time
- Remote configuration, acquisition, and display of sensor data with SensorConnect™
- Optional web-based SensorCloud platform optimizes data storage, viewing, alerts, and analysis.
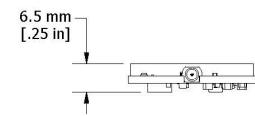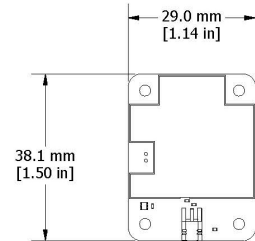- Easy custom integration with open-source, comprehensive communications and command library (API)

Applications
- Vibration monitoring
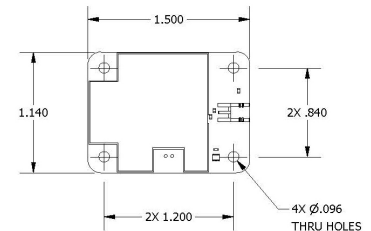- Condition based maintenance (CBM)
- Impact and event monitoring

INPUT SENSORS   WIRELESS NODES   GATEWAYS   SOFTWARE

Wireless Simplicity, Hardwired Reliability™

Specifications

Accelerometer Channels

Measurement range	**8 g**	**40 g**
	±2 g, ±4 g, or ±8 g configurable	±10 g, ±20 g, or ±40 g configurable
Noise density	25 μg/√ Hz	80 μg/√ Hz
0 g offset	±25 mg (±2 g)	±50 mg (±10 g)
0 g offset vs temperature	±.1 mg/ °C (typical), ±.15 mg/ °C (maximum)	±0.5 mg/ °C (typical), ±0.75 mg/ °C (maximum)
Integrated sensors	Triaxial MEMS accelerometer, 3 channels	
Accelerometer bandwidth	DC to 1 kHz	
Resolution	20-bit	
Scale factor error	< 1% full-scale	
Cross axis sensitivity	1%	
Sensitivity change (temperature)	±0.01%/° C	
Anti-aliasing filter	1.5 kHz (-6 dB attenuation)	
Low-pass digital filter	26 to 800 Hz - configurable	
High-pass digital filter	Off to 2.5 Hz - configurable	

Integrated Temperature Channel

Measurement range	- 40 °C to 85 °C
Accuracy	±0.25 °C (over full range)

Sampling

Sampling modes	Continuous, periodic burst, event triggered
Output options	Acceleration, Derived channels: Velocity (IPSrms), Amplitude (Grms and Gpk-pk) and Crest Factor
Sampling rates	1 sample/hour to 4096 samples/second
Sample rate stability	±5 ppm
Network capacity	Up to 128 nodes per RF channel (bandwidth calculator:) http://www.microstrain.com/configure-your-system
Node synchronization	±50 μsec
Data storage capacity	16 M Bytes (up to 8,000,000 data points)

Operating Parameters

Wireless communication range	Outdoor/line-of-sight: 2 km (ideal)*, 800 m (typical)** Onboard antenna: 1 km (ideal)*, 400 (typical)** Indoor/obstructions: 50 m (typical)**
Antenna	Surface mount or External through MMCX or U.FL connector
Radio frequency)RF) transceiver carrier	License-free 2.405 to 2.480 GHz with 16 channels
RF transmit power	User-adjustable 0 dBm to 20 dBm. Restricted regionally
Power source	3.3 - 36 V dc to solder pads
ESD	±4000 V (Applies to VIN, GND, Antenna, and shield)
Operating temperature	-40 °C to +85 °C

Physical Specifications

Dimensions	38.1 mm x 29.0 mm x 6.5 mm
Mounting	(4) 2- 56 UNC
Weight	8.17 grams
Conformal coating	Humiseal 1B31

Integration

Compatible gateways	All WSDA® gateways
Software	SensorCloud, SensorConnect, Windows 7, 8 & 10 compatible
Software development kit	http://www.microstrain.com/software/mscl
Regulatory compliance	FCC (USA), IC (Canada), CE (European Union), JET (Japan)

*Actual range varies with conditions
**Measured with antennas elevated, no obstructions, no RF interferers.

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Mounting Dimensions

Connector Pinout

LORD SENSING