G-Link®-200

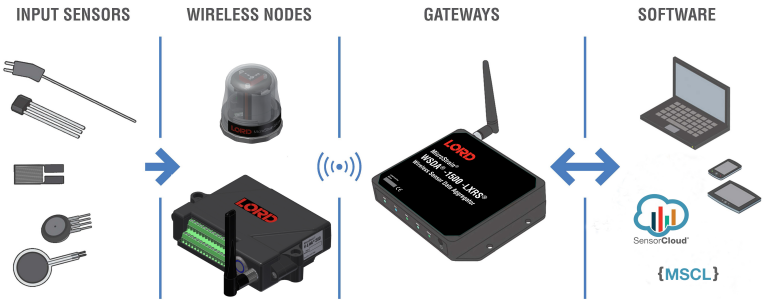
Wireless Accelerometer Node

G-Link®-200 - *ruggedized 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 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)
- LXRS protocol allows lossless data collection, scalable networks, and node synchronization of ±50 µs.
- 1 Sample per hour to 4096 Samples per second
- Ruggedized IP-67 rated enclosure

Features and Benefits

High Performance

- User-configurable low and high pass filters
- Extremely low noise on all axis 25 µ*g*/√Hz or 80 µ*g*/√Hz
- High accuracy temperature sensor ±0.1 °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)

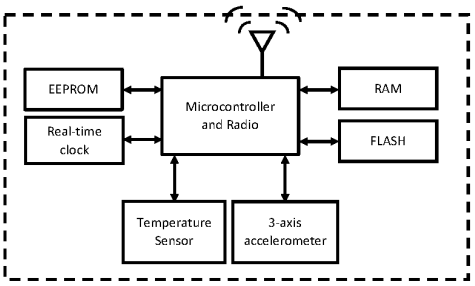
Applications

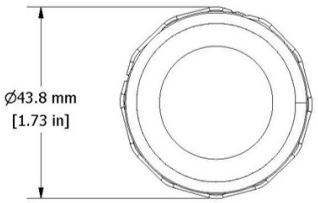
- Vibration monitoring
- Condition based maintenance (CBM)
- Impact and event monitoring
- Health monitoring of rotating components, aircraft, structures, and vehicles

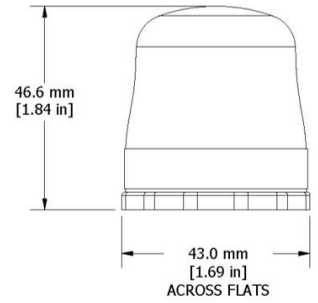
G-Link®-200 Wireless Accelerometer Node

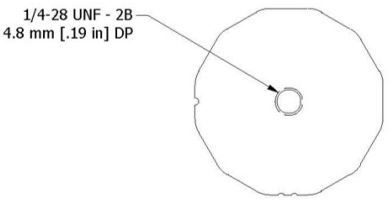
Specifications

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 µ*g*/√*Hz*	80 µ*g*/√*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	±0.1 °C (over full range)	
Sampling		
Sampling modes	Continuous, periodic burst, event triggered	
Output options	Acceleration, Derived channels: Velocity (IPS_{rms}), Amplitude (G_{rms} and G_{pk-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)**, Indoor/obstructions: 50 m (typical)**	
Radio frequency (RF) transceiver carrier	License-free 2.405 to 2.480 GHz with 16 channels	
RF transmit power	User-adjustable from 0 dBm to 20 dBm. Power output restricted regionally to operate within legal limits	
Power source	3 x 3.6 V, ½ AA batteries (Saft LS 14250 recommended)	
Battery input range	0.8 V to 5.5 V	
Operating temperature	-40 °C to +85 °C	
Physical Specifications		
Dimensions	46.6 mm x 43 mm x 44 mm	
Mounting	¼ - 28 UNF - 2B 4.8 mm [.19 in] DP.	
Weight	Node with 3 batteries: 122 grams	
Environmental rating	IP67	
Enclosure material	300 series stainless steel with polycarbonate cover	
Integration		
Compatible gateways	All WSDA base stations and gateways	
Software	SensorCloud, SensorConnect, Windows 7, 8 & 10 compatible	
Software development kit (SDK)	http://www.microstrain.com/software/mscl	
Regulatory compliance	FCC (USA), IC (Canada), CE (European Union), JET (Japan)	









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

LORD SENSING

LORD Corporation
MicroStrain® Sensing Systems
459 Hurricane Lane , Suite 102
Williston, VT 05495 USA

ph: 802-862-6629
sensing_sales@LORD.com
sensing_support@LORD.com

Document 8400-0102 Revision C. Subject to change without notice.