

## PRODUCT DATA SHEET

# G-Link-200-OEM: Embeddable Wireless Accelerometer Node

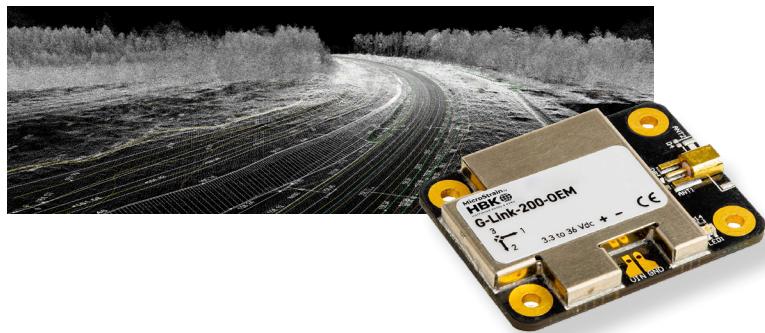
The G-Link-200-OEM has an on-board triaxial accelerometer that allows high-resolution data acquisition with extremely low noise and drift. Additionally, derived vibration parameters allow for long-term monitoring of key performance indicators while maximizing battery life.

The MicroStrain 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.

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.

## HIGH PERFORMANCE SENSING

- On-board triaxial accelerometer with  $\pm 2$  to  $\pm 40$  g measurement range
- Extremely low noise on all axes 25  $\mu\text{g}/\sqrt{\text{Hz}}$  or 80  $\mu\text{g}/\sqrt{\text{Hz}}$
- User-configurable low and high pass filters
- On-board temperature sensor



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## EASY TO INTEGRATE

- Small, thin form factor
- Power from 3.3 to 36 VDC
- -40 to +85°C operating temperature
- On-board, U.FL, or MMCX antenna options

## RELIABLE DATA COLLECTION

- Lossless, synchronized, and scalable networks using LXRS or LXRS+ protocol
- Remotely configure nodes and view sensor data with SensorConnect (PC), SensorCloud (web), or MSCL (API library)

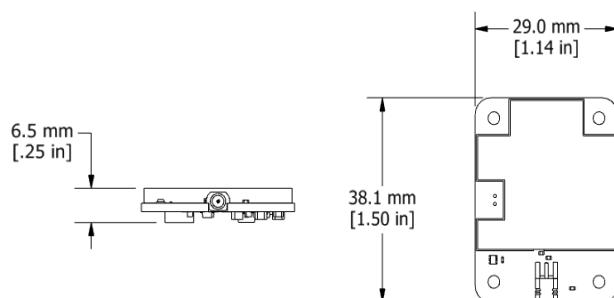
## CONFIGURE FOR MANY APPLICATIONS

- Output raw acceleration waveform data, tilt, or derived vibration parameters (Velocity, Amplitude, Crest Factor)
- Up to 4096 Hz sampling
- Continuous, periodic, or event-triggered operation
- Transmit data real-time and/or save to onboard memory

## APPLICATIONS

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

Analog Input Channels		
<b>Measurement Range</b>	8 g	40 g
	±2 g, ±4 g, or ±8 g configurable	±10 g, ±20 g, or ±40 g configurable
<b>Noise density</b>	25 $\mu\text{g}/\sqrt{\text{Hz}}$	80 $\mu\text{g}/\sqrt{\text{Hz}}$
<b>0 g offset</b>	±25 mg (±2 g)	±50 mg (±10 g)
<b>0 g offset vs temperature</b>	±1 mg/ °C (typical) ±15 mg/ °C (max)	±0.5 mg/ °C (typical) ±0.75 mg/ °C (max)
<b>Integrated sensors</b>	Triaxial MEMS accelerometer, 3 channels	
<b>Accelerometer bandwidth</b>	DC to 1 kHz	
<b>Resolution</b>	20 bit	
<b>Scale factor error</b>	< 1%	
<b>Cross axis sensitivity</b>	1% typical	
<b>Sensitivity change (temperature)</b>	±0.01%/°C typical	
<b>Anti-aliasing filter</b>	1.5 kHz (-6 dB attenuation)	
<b>Low-pass digital filter</b>	26 to 800 Hz - configurable	
<b>High-pass digital filter</b>	Off to 2.5 Hz - configurable	
Sampling		
<b>Sampling modes</b>	Continuous, periodic burst, event triggered	
<b>Output options</b>	Acceleration, Tilt, and Derived channels: Velocity (IPSRms), Amplitude (Grms and Gpk-pk) and Crest Factor	
<b>Sampling rates</b>	1 Sample/hour to 4096 Hz.	
<b>Sample rate stability</b>	±5 ppm	
<b>Network capacity</b>	Up to 128 nodes per RF channel (bandwidth calculator) <a href="http://www.microstrain.com/configure-your-system">http://www.microstrain.com/configure-your-system</a>	
<b>Node synchronization</b>	±50 $\mu\text{sec}$	
<b>Data storage capacity</b>	16 M Bytes (up to 8,000,000 data points)	



**MicroStrain by HBK**  
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Integrated Temperature Channel				
<b>Measurement range</b>	-40°C to 85°C			
<b>Accuracy</b>	±0.25°C (over full range)			
Operating Parameters				
<b>Wireless communication range</b>	Outdoor/line-of-sight: 2 km (ideal)*, 800 m (typical)** Onboard antenna: 1 km (ideal)*, 400 (typical)** Indoor/obstructions: 50 m (typical)**			
<b>Antenna</b>	Surface mount or External through MMCX or U.FL connector			
<b>Radio frequency (RF) transceiver carrier</b>	License-free 2.405 to 2.480 GHz with 16 channels			
<b>RF transmit power</b>	User-adjustable 0 dBm to 20 dBm. Restricted regionally			
<b>Power source</b>	3.3 V dc to 36 V dc to solder pads			
<b>Pulse Current***</b>	Tx Power	VIN=3.6V	VIN=5.0V	VIN=12V
	+20 dBm	135 mA	100 mA	45 mA
	+16 dBm or less	100 mA	70 mA	32 mA
<b>ESD</b>	±4000 V (Applies to VIN, GND, Antenna, and shield)			
<b>Operating temperature</b>	-40°C to +85°C			
<b>Mechanical Shock Limit ****</b>	1000g/1.5ms			
Physical Specifications				
<b>Dimensions</b>	1.5 " x 1.14 " x .254" (38.1 x 29.0 x 6.5 mm)			
<b>Mounting</b>	(4) 2-56 UNC Chassis purchased separately			
<b>Weight</b>	8.17 grams			
<b>Conformal coating</b>	Humiseal 1B31			
Integration				
<b>Compatible gateways</b>	All WSDA gateways			
<b>Software</b>	SensorCloud, SensorConnect, Windows 7, 8 & 10 compatible			
<b>Software development kit</b>	<a href="http://www.microstrain.com/software/mscl">http://www.microstrain.com/software/mscl</a>			
<b>Regulatory compliance</b>	FCC (USA), IC (Canada), CE (European Union), MIC (Japan)			

\* Actual range varies with conditions

\*\* Measured with antennas elevated, no obstructions, no RF interferers.

\*\*\* Power source must supply short duration pulse currents as determined by the transmit power setting and the supply voltage.

\*\*\*\* Repeated exposure to >2x full scale can result in permanent damage. See manual for details.

# Mouser Electronics

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[G-Link-200-OEM-40G CE Version](#)