LORD MicroStrain® Wireless Overview

Sensor Nodes · Gateways · Software

Wireless Sensor Nodes

microstrain.com/wireless

Featuring LXRS® lossless protocol, our wireless nodes enable simultaneous high-speed sensing and data acquisition from multiple inputs as part of a scalable network. They are ideal for condition-based monitoring, structural health monitoring, and test & measurement. A network of wireless nodes can be synchronized to ±32 microseconds. Most nodes offer continuous, burst, and event-triggered sampling. The following are just a few of the many nodes LORD MicroStrain offers, along with OEM versions:

V-Link®-LXRS®
7-CHANNEL ANALOG INPUT NODE

· Four differential & three single-ended analog inputs, plus internal temperature sensor
· User-configured sample rates up to 512 Hz (continuous), 10 kHz (burst)

G-Link®-LXRS®
ACCELEROMETER NODE

· High-speed triaxial ±2g/10g MEMS accelerometer, plus internal temperature sensor
· User-configured sample rates up to 512 Hz (continuous), 10 kHz (burst)

IEPE-Link®-LXRS®
IEPE SENSOR NODE

· One-channel IEPE accelerometer
· User-configured burst sample rates from 1 kHz to 104 kHz

SG-Link®-RGD-LXRS®
RUGGEDIZED ANALOG INPUT NODE

· Four analog inputs, triaxial MEMS accelerometer, plus internal temperature sensor
· User-configured sample rates up to 512 Hz (continuous), 10 kHz (burst)
· MIL-STD-461F-rated enclosure

Applications

· Test & Measurement
· Condition-Based Monitoring
· Structural Health Monitoring
· Environmental Monitoring
· Control Systems

Measured Parameters

· Torque
· Vibration
· Pressure
· Power/Energy
· Strain
· Temperature
· Acceleration
· Load

LORD MicroStrain®
SENSING SYSTEMS

Our wireless gateways coordinate and maintain wireless transmissions across a network of wireless sensor nodes via included Node Commander® software. Most gateways are available with a variety of outputs, including USB, RS-232, CAN, Ethernet, and analog and can easily tie into a PC, PLC, DAQ, or into our SensorCloud™ software. A MIL-STD-810F/461E option is also available.

WSDA®-1500-LXRS®
WIRELESS SENSOR DATA AGGREGATOR

· Ethernet and J1939 CAN interfaces, micro SD 4GB data storage
· Configurable for static IP, a DHCP-enabled LAN, or as a local datalogger

WSDA®-Base-104-LXRS®
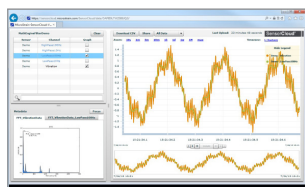### WIRELESS USB BASE STATION

· USB 2.0 communications interface @ 921,600 bps
· 1 Hz beacon provides ± 32 μsec node-to-node synchronization

SensorCloud®   sensorcloud.com

SensorCloud™ is a unique web-based, remotely-managed, and globally-accessible platform for sensor data storage, visualization, alerts, and analysis. It leverages powerful cloud-computing technologies to provide excellent data scalability, rapid graphing, and user-programmable analytics.

SensorCloud™
CLOUD-BASED DATA MANAGEMENT

· Securely upload sensor data from any web-based source
· Navigate through massive amounts of data, and quickly zero in on key points
· Create actionable email and SMS alerts
· Configure, view, and record high-speed data streams in real-time

Also available from LORD MicroStrain

Inertial Sensors
microstrain.com/inertial
Miniature sensors for orientation, heading, attitude, position, and velocity. IMU, AHRS, and GPS/INS sensors available, including tactical-grade and ruggedized options.

Displacement Sensors
microstrain.com/displacement
Contact sensors (sub/microminiature, gauging/non-gauging), non-contact sensors, and signal conditioners for measuring highly precise data where not previously possible.