



Primary Receiver Node (SD-PRN-1)

The SmartDiagnostics® family of innovative wireless sensor products enables the implementation of advanced predictive maintenance processes for any company. The system provides continuous monitoring of vibration and temperature, or other parameters to track the operating health of the monitored equipment.

The role of the SmartDiagnostics® Primary Receiver Node (PRN) wirelessly communicates with and controls the sensor nodes in real time, enabling accurate and reliable monitoring of plant equipment. PRNs within the network connect either directly to a computer with monitoring software or to a Collection Server for remote monitoring.



Give Your Machines **a Voice™**

NO INTERFERENCE

SmartDiagnostics® wireless receivers and sensors coexist with existing wireless networks with no interference due to their small data packet size and extremely low overhead, making them indispensable in a wide variety of industrial settings. The sensors and receivers can adapt to multiple frequencies over long distances, and nodes can auto-recover the network if they are moved.

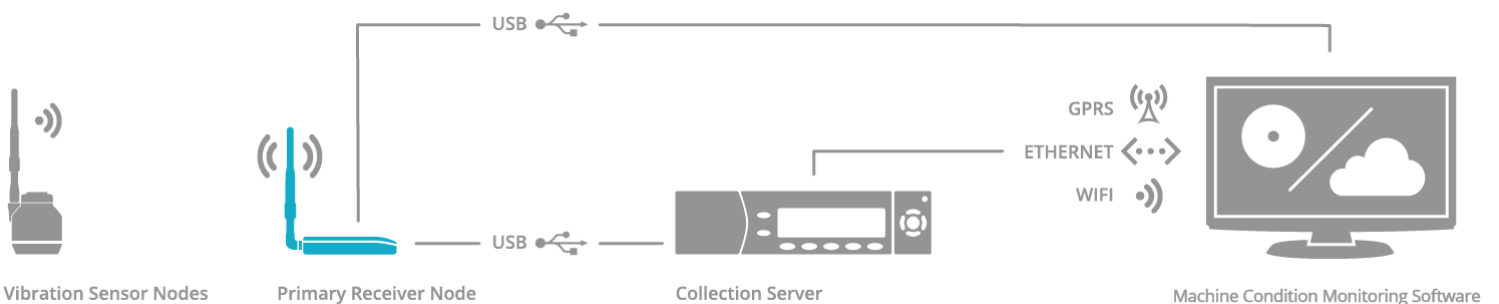
SCALABLE

Each Machine Condition Monitoring System computer or Collection Server can host many receiver nodes and each receiver can be configured to collect data from up to 24 sensors, enabling a single MCM system to monitor hundreds of machines with multiple sensors each. This system allows you to scale your predictive maintenance system to the size of your plant, no matter how large or small it is.

EFFICIENT

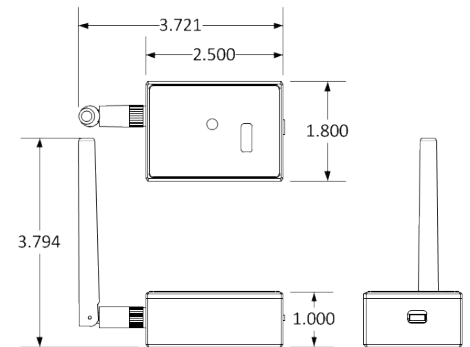
Receivers are powered and communicate via USB with their host computer or Collection Server. Each receiver can simultaneously collect information from many sensor nodes, increasing system efficiency and keeping implementation costs low. Sensors can be set up to deliver data to receivers continuously or collect high data throughput in short bursts, giving more sensitive results and preventing the monitoring of excess data.

The SmartDiagnostics® System



Primary Receiver Node Specifications

Dimensions	46mm x 25.5mm x 63.5mm 1.80in x 1.00in x 2.50in Excluding antenna
Weight	150.8g 5.3oz
Wireless	<ul style="list-style-type: none"> 2.40GHz to 2.835GHz ISM band radio (FCC ID #Z5IPRN1) Very low power, low overhead proprietary air protocol
Antennas	<ul style="list-style-type: none"> Standard 2dB antenna (4.125" long, swivel and hinge) Optional 41" and 125" magnetic mount antennal extension
Power Source	<ul style="list-style-type: none"> USB connection to host computer or Collection Server
Enclosure Material	Machined Aluminum
Operating Temperature	-40° to 85° C



Industry Applications

-  Industrial HVAC/R
-  Oil & Gas
-  Power Generation
-  Pulp & Paper
-  Food & Beverage

Features & Benefits

- Very efficient wireless transmission protocol enables rich sensor data collection using minimal power and bandwidth
- Easy, yet highly configurable sensor network structure simplifies system implementation and management
- Robust industrial strength design of the Receiver Node allows them to be deployed in harsh industrial environments
- Total cost of ownership is minimized through a combination of affordable receivers plus easy implementation and management