Features & Benefits

ASSET INTELLIGENCE
Monitor the equipment health of any rotating machine such as pumps, motors, fans, and more.

EASY TO USE
Put machine monitoring in the hands of the everyday user.

STAY SAFE
A Bluetooth® Smart wireless connection allows monitoring from a safe distance.

EARLY DETECTION
Unplanned machine failures can cost 10 times more than planned maintenance.

SAVE TIME
Quickly scan multiple machines at once and cover more equipment with less resources, freeing time for analysis and troubleshooting.

SOLVE PROBLEMS
Advanced vibration diagnostic tools are available to anyone who can use a smart phone or tablet.

Product & Services

Bluetooth Sensors
Monitor tri-axial vibration, temperature, run-time hours and pressure

Mobile App
Monitor your machine right from your phone with the free mobile app.

Gateway
Add remote monitoring capabilities by leveraging remote data collection devices

Ai Platform
Monitor all of your i-ALERT sensors and machines from a simple web interface
i-ALERT Solution

Scalable Predictive Maintenance at Any Level

Troubleshooting
- On-Demand Vibration & Temperature
- Around the Clock Trends
- Retrieve Vibration Spectrum on Demand or in Alarm

Route Based Monitoring
- Manage Team Data Collection Activities
- View Consolidated Data from All Assets
- Automated Reports & Notifications

Remote Monitoring
- 24/7 Continuous Monitoring
- Plug and Play Configuration (Auto-detect)
- Typical Range of 30-100m (100-300ft)

Full Integration
- Data Integration
- RESTful API (Real-Time data feed)
- Data Historian System Integration (OMF)

Flexible Data Collection and Access

Remote Continuous Monitoring
- Cellular
- Cellular/Wi-Fi
- Bluetooth

Local Data Collection & Troubleshooting
- Bluetooth

Web Service / RESTful API

Local Data Historian

Manage Assets, Alarms & Compliance

Remote Monitoring & Analysis
Applications

Troubleshooting

A global oil and gas refiner was experiencing multiple seal failures a year on an overhung API style pump. The reliability team was taking vibration measurements on this pump every 2 to 3 weeks, but could not find the root cause of the problem. An i-ALERT was installed on the pump and captured numerous high vibration events. Because the i-ALERT time stamped the data the reliability team was able to trace the root cause to a disruption in steam production to an upstream process causing the pump to be starved of flow and cavitating.

“We had no idea what happens in between those snapshots of the vibration readings until we installed the i-ALERT.”

Case Study

Cut Data Collection Time in Half
Reports are Generated Automatically

A petrochemical additive manufacturer working in conjunction with their PdM service provider cut their route-based data collection time by more than 50% just by using the i-ALERT2 route feature. The exception report created instantaneously upon route completion further saves time. It allows the service provider’s highly trained vibration analysts to focus on troubleshooting and complex problem resolution, thereby maximizing the value of their contract with the customer.

“Of the 33 i-ALERT2 devices installed, 13 can be read by standing in just one spot”

Remote Monitoring

A phosphate production plant has over 200 i-ALERT2 sensors installed at their facility. The facility’s reliability team was looking for a solution to gather real time feedback on critical assets monitored by the i-ALERT2. The i-ALERT gateway provided the solution. When a sensor detects a vibration or temperature alarm the team would receive a notification via email. The reliability team was able to capture process and mechanical issues in real-time on any i-ALERT enabled asset in range of the gateway. Despite metal grating, concrete tanks and EMI interference they were able to cover ~90% of all the i-ALERT enabled assets with 5 gateways.

“I got an email with the sensor in alarm that showed cavitation happening overnight”
Hardware

i-ALERT 2 Sensor

Machine Health Monitoring
Monitor and log the vibration and temperature of any rotating machine. Capture transient events with a 1 to 5 minute alarm check and trend overall health with 1 to 60 minute trend interval. For advance analysis request or download vibration spectrum on demand.

Technical Specifications
Vibration: 3-Axis, 5 to 1100Hz (X,Y) 5 to 700Hz (Z)
Temperature: -40°C to +84°C (-40°F to +183°F) T3
-40°C to +60°C (-40°F to +140°F) T4
Data Storage: 170 Days (based on hourly data)
Analysis: Machine Run-Time, Kurtosis, Vibration Spectrum
Wireless: Bluetooth V4, Range 30-100m (100-300ft)
Power: Lithium Battery, 3 Year Average Life (use dependent)
Environment: IP68 / NEMA4x, Intrinsically Safe

i-ALERT Pressure Sensor

Process Monitoring
Directly measure and monitor the pressure and temperature of any process fluid. Build long term trends and capture transient events with the built in data logger.

Technical Specifications
Pressure: -14.7 to 10,000 psi
Temperature: -20°C to 85°C (-4°F to 185°F)
Wireless: Bluetooth V4, Range 30-100m (100-300ft)
Data Storage: 300 Days (based on hourly data)
Power: 2 Year Replaceable Lithium Battery (use dependent)
Enclosure: IP68 / NEMA4x
Wetted Material: 17-4 Stainless Steel

i-ALERT Gateway

Secure Connection
The i-ALERT Gateway provides a secure connection between the i-ALERT sensors and the i-ALERT Ai portal. Apply power and let the gateway automatically connect to the cellular network and configure all the i-ALERT sensors in range.

Technical Specifications
Cellular WAN*: LTE, 3G
Bluetooth: Bluetooth 4.0 (Max 12.5 dBm)
Wireless Range: 30-100m (100-300ft)
Power: 120-240VAC or 6-90 VDC
Temperature: -30°C to 60°C (-22°F to 140°F)
Enclosure: IP68 / NEMA4x, Class 1 Division 2

*Wi-Fi and LAN available on Request
i-ALERT APP

**Dashboard**
Simple, intuitive dashboard to track vibration, temperature, run-time & battery life

**Trending**
Trend vibration, temperature, & kurtosis to monitor any changes in the equipment operation

**Advanced Tools**
Download or request a Fast Fourier Transform (FFT) & Time Wave Form to perform vibration analysis

**Schedule Routes**
The app will automatically collect the data on your route and will prompt the user if more data is needed

**Datasheets for Machines**
Load performance and technical reference documents for all your machines

**Report Generator**
Generate a machine health report and send the report via email
i-ALERT Ai Online Platform
Monitor and manage all of your i-ALERT enabled machines and sensors in one place. This subscription service requires no software to download or dedicated hardware to run.

Get a Complete History of Your Machine
Stop wasting time piecing together the machine history from different data sources. View trend data, machine notes, technical data and vibration spectrum data all visualized in a simple timeline.

Track Your Plant Performance
Track the overall performance of all your machines in your plant. Set up different sites, zones or areas to compare how one area is performing to the other.

Analyze and Diagnose Machine Faults
View vibration spectrum data in all three axis. Use the built in analysis tools to view and analyze FFT (Fast Fourier Transform) and TWF (Time Waveform) data sets to diagnose machine faults.

Manage Data Collection Activities
Create, View, Assign and Edit data collection activities from the Routes Control Center. Measure on-time performance, see what routes are due, by when and by who.
Part Numbers

i-ALERT2 v3

- Aluminum Mounting Adapter: RC10218AF
- Stainless Steel Mounting Adapter: C10743A
- Magnetic Mounting Adapter: C10986A

Pressure & Temperature Sensor
- -14.7 to 100 psi: K10504A01
- -14.7 to 250 psi: K10504A02

Gateway²
- 120-240VAC: K13653A
- 9-60VDC: K13654A

1. For pressure ratings above 250psi call factory
2. Part number valid for USA & Canada. For Gateways outside USA or Canada call factory

Pricing: https://www.i-alert.com/pricing
Where to buy: https://www.i-alert.com/pricing/locator
Contact Us: support@i-alert.ai
             1.315.568.7290