

i-ALERT[®] Monitoring Solution

Sensor | App | Ai Platform  **Bluetooth[®]**



Status	Asset Name	Asset #	Sensor #	Priority	Watch	Location
Multiple Alarms	Compressor # 1	74022	AC384C792564	LOW		SPS - Main Facility - Power House
Normal	Mag Float Dc	133456789	AC384C792564	MEDIUM		SPS - Main Facility - 2nd Floor West
Normal	50KCH	5907	AC384C792564	LOW		SPS - Facility - 8 Dust Collection
Normal	133K CHX FAN	75784	CC384C792564	HIGH		SPS - Facility - 8 Dust Collection
Normal	PAK FAN 0002A	A-75106-100	CC384C792564	HIGH		SPS - Facility - 8 Dust Collection
Normal	50KCH	75782	CF384C792564	LOW		SPS - Main Facility - 8 Dust Collection
Normal	Power House Pump	N7294512	DS384C792564	LOW		SPS - Main Facility - 8 Dust Collection
Normal	Power House Pump	N7294512	DS384C792564	LOW		SPS - Main Facility - 8 Dust Collection
Normal	50KCH	5907	EP384C792564	LOW		SPS - Main Facility - 8 Dust Collection
Normal	133K CHX FAN	75784	SS384C792564	LOW		SPS - Facility - 8 Dust Collection

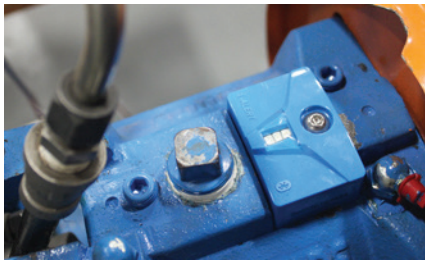
Report Generator

i-ALERT Summary Report

Runtime: 329 HOURS

Vrms Axial, Vrms Horizontal, Vrms Radial, Temperature

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

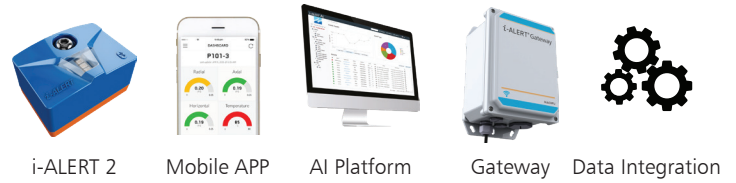


Ai Platform

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

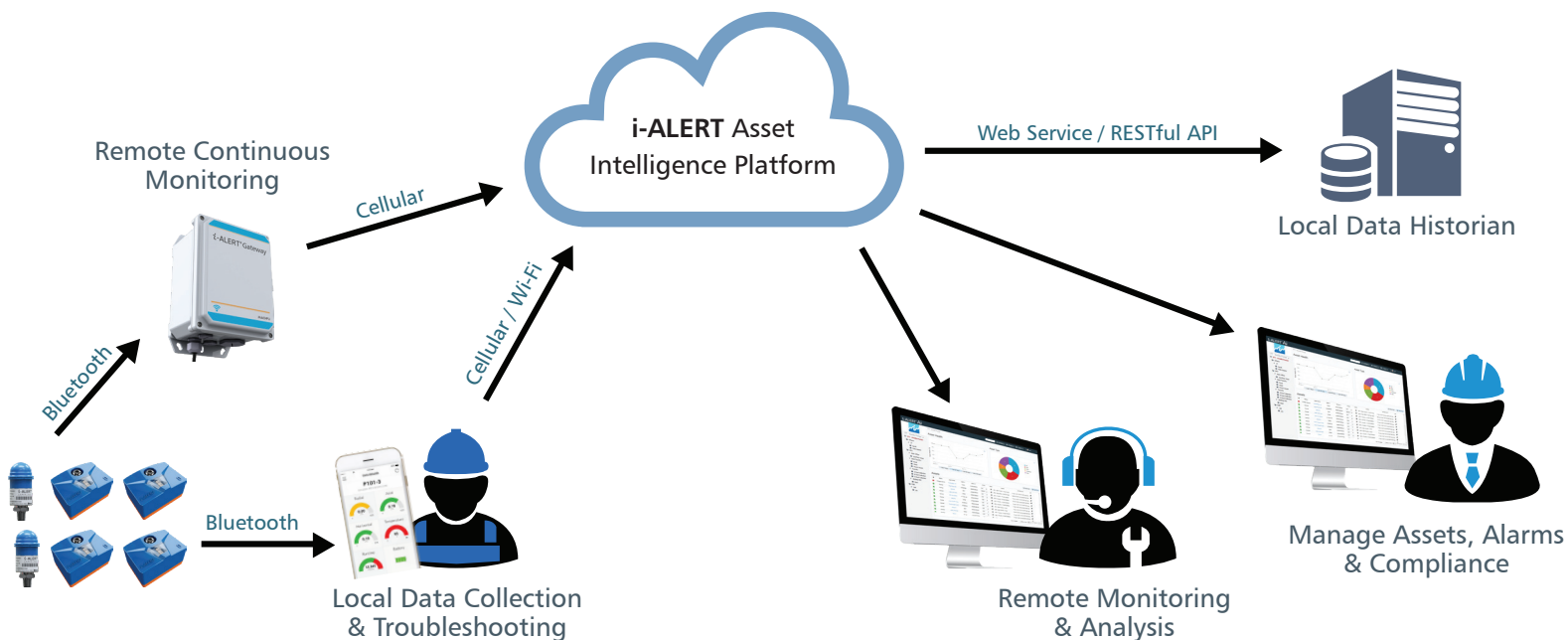
i-ALERT Solution

Scalable Predictive Maintenance at Any Level



Feature	i-ALERT 2	Mobile APP	AI Platform	Gateway	Data Integration
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

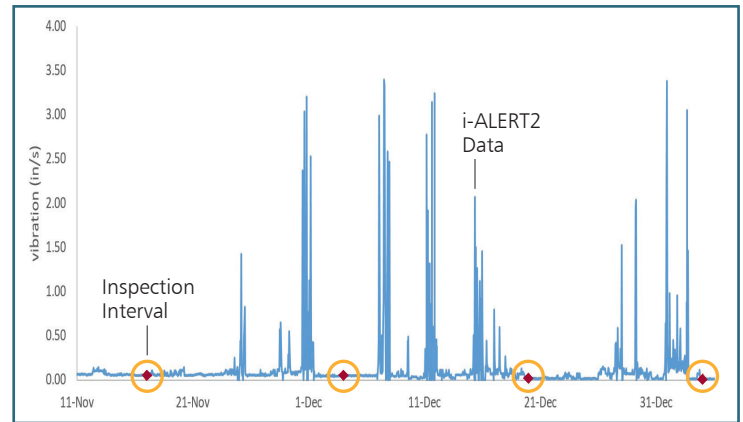


Applications

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"



Portable Data Collector



i-ALERT2 monitoring

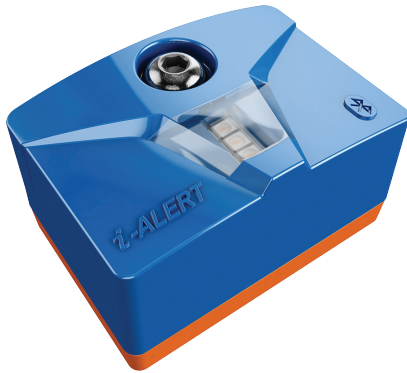
Remote Monitoring

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"



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)

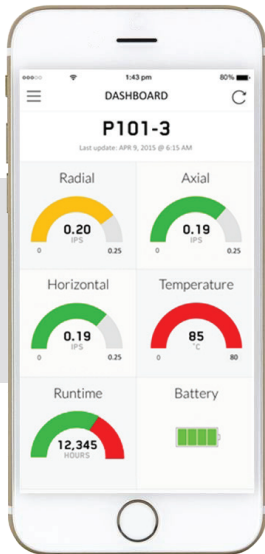
Wireless Range: 30-100m (100-300ft)

Power: 120-240VAC or 6-90 VDC

Temperature: -30°C to 60°C (-22°F to 140°F)

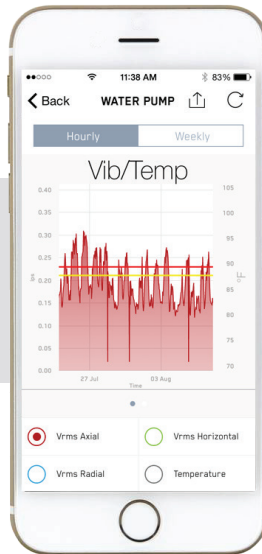
Enclosure: IP68 / NEMA4x, Class 1 Division 2

i-ALERT APP



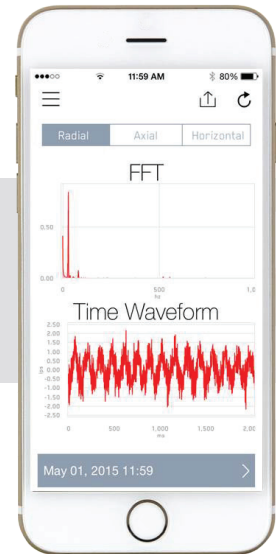
Dashboard

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



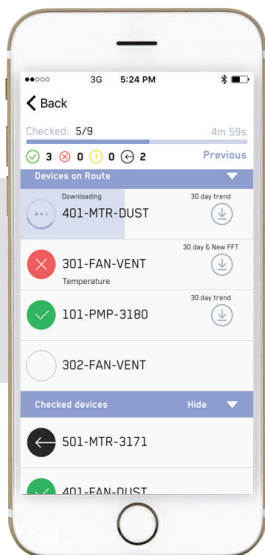
Trending

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



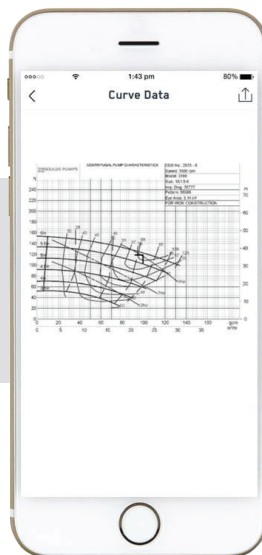
Advanced Tools

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

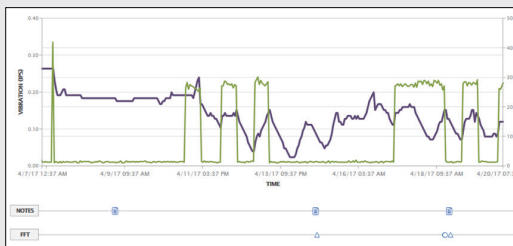
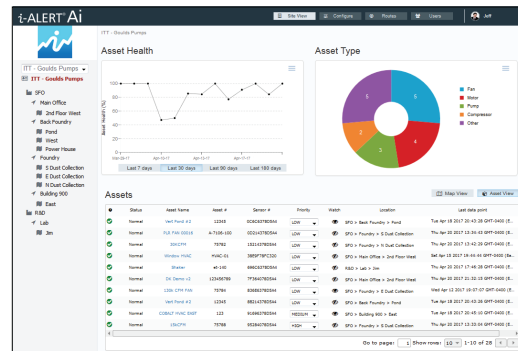


Report Generator

Generate a machine health report and send the report via email

i-ALERT Ai (i-ALERT.ai)

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.

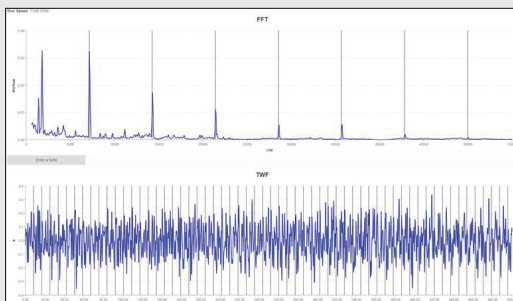
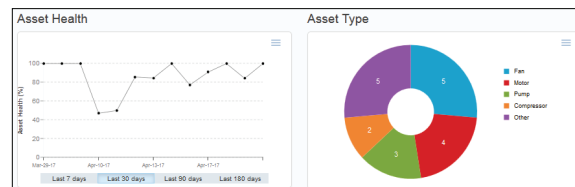


Get a Complete History of Your Machine

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.



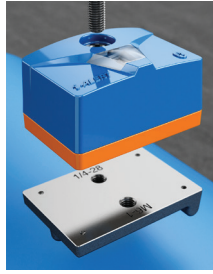
Part Numbers

i-ALERT2 v3



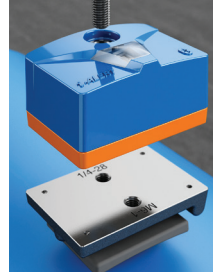
RC10218AF

Aluminum Mounting Adapter



C10743A

Stainless Steel Mounting Adapter



C10986A

Magnetic Mounting Adapter



K09925A

Pressure & Temperature Sensor
-14.7 to 100 psi



K10504A01

Pressure & Temperature Sensor
-14.7 to 250¹ psi



K10504A02

Gateway²
120-240VAC



K13653A

Gateway²
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



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