See the invisible

For the first time ever, RDI Technologies™ enables you to quickly and easily see what is invisible to the naked eye and transition to analysis and root cause problem solving. RDI’s comprehensive industrial solution is driven by proprietary software that turns the millions of pixels in today’s modern cameras into million of sensors that can be analyzed and visualized in a simple video format.

RDI’s revolutionary Iris M™ product is changing the way companies monitor the condition of billions of dollars worth of plant machinery, process lines, structures, and other plant assets. RDI’s Iris M will change the way you monitor your highest producing assets, failure critical machines, and daily route based monitoring.
“One of the most disruptive problem solving tools I have ever seen!”

John Schultz, Executive Vice President, TF Hudgins, Allied Reliability Group
What is Motion Amplification™?

RDI’s patented technology measures deflection, displacement, movement and vibration not visible to the human eye. Our total industrial solution utilizes video camera technology in conjunction with our one-of-a-kind software and processing algorithms to extract meaningful data that solves problems. This technology turns every pixel in the camera’s view into a sensor capable of measuring vibration or motion with unparalleled levels of accuracy.

**Visualize:** Iris M™ enables a dramatic visualization of the motion. Motion Amplification™ is a proprietary video processing software that detects subtle movement and then converts that movement to a level visible with the naked eye.

**Communicate:** Iris M™ enhances the understanding of the components and interrelationships creating the motion and provides a communication tool between technical and non technical resources.

**Measure:** Iris M™ measures and quantifies mechanical or structural assets that a camera can see with the same accuracy as a contacting displacement sensor.

**Troubleshoot:** Iris M™ allows you to filter your data and visualize motion at specific frequencies to find the real source of a problem and position your team to fix it.

**Prioritize**

Today’s companies have “analysis paralysis” because they have too much data and information to process. Iris M helps you prioritize by quickly and easily visualizing what is happening with your assets.

**Complement**

Iris M complements your current PDM toolkit. Iris M can be used to identify, validate, or specify the source of reliability problems. It will enhance your root cause analysis program and allow you to see problems that other tools can’t detect.

**Root-Cause**

With Iris M, you will not only see a problem, you will see the solution. By visualizing the root cause, Iris M allows you to move beyond data collection to true problem-solving.
**SEEING IS BELIEVING™**

The world’s first non-contact Motion Amplification™ software platform

Iris M™ from RDI Technologies is the first device of its kind that allows users to instantly see movement that is invisible to the human eye. The Motion Amplification™ software quickly identifies the root-cause of your problem. Iris M is used in a wide range of industrial markets and plant applications.

The Iris M platform monitors critical manufacturing machinery, operations, process lines, structural components, quality control, and other factors that affect plant reliability and productivity. By turning every pixel in the camera into a sensor, Iris M takes millions of measurements in a fraction of a second. It does this with no physical connection or disruption to your operations, machinery, or plant assets.

The Iris M technology platform delivers real-time video to users, enabling them to make instant decisions about manufacturing operations based on real data. It also gives you the ability to visualize the entire process while retaining component-level analysis. All of this makes Iris M the perfect tool for screening assets, fault finding, commissioning new assets, and pre/post repairs or retrofits. Every step of the way, Iris M provides specific information about the process or issues at the root of a quality problem.

Iris M’s Motion Amplification™ software produces an easy to understand video of actual movement across your equipment or machinery which enables far more effective communication between technical and nontechnical personnel – enhancing decision-making. Videos from the Iris M platform are produced within seconds of data collection. In other words, Iris M saves you time and money.
What differentiates Iris M™ from traditional tools is that it simultaneously monitors all points of your process and machinery, and it does this with no impact to your flow of business. Iris M is completely non-contact and provides a comprehensive analysis while the machinery is operating. With Iris M, you move well beyond data collection to problem-solving.

“For the last six months we have been using RDI Technologies’ award-winning IRIS M Motion Amplification Cameras across a wide range of industries and applications. It’s not often you can use the term “Game changing technology”, but in this case it certainly applies!”

Stuart Walker, RMS
**IRIS™ Boosting Vision**

**Motion Amplification™ Lenses**
- 6mm, 12mm, 25mm, 50mm, 100mm

**Acquisition System**
- i7 processor, 16GB RAM, 500GB SSD, dual batteries, lightweight, MIL-STD-810G standard drop protection, 3 yr accidental damage protection*

**Sample Rate**
- 120/100 fps default, up to 1,300 fps at reduced resolution

**Frequency Range**
- US: Up to 3,600 rpm @ 120 fps default
- Int: Up to 3,000 rpm @ 100 fps default
- Maximum: 39,000 rpm @1,300 fps with reduced resolution

**Minimum Displacement**
- 0.1 mil (2.5 µm) at 3.3 ft (1m) with 50mm lens at max brightness

**Motion Amplification™ Factor**
- 1-50x

**Vibration Pads**
- 95% impulse absorption

**Tripod**
- Professional Grade with pistol grip

**Case**
- Watertight, dustproof, crushproof

**USB3 Cable Length**
- 9.84 ft. (3 m)

**Optional Accessory Kit**
- LED light: 14,000 Lux @ 1 m, Li-ion light battery, light stand, extra vibration pads, computer stand

**Specification**

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<td>HD MP4 at 1920x1080 resolution</td>
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<td><strong>Video Annotations</strong></td>
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<td><strong>Grid Overlay</strong></td>
<td>Configurable grid overlay (size, color)</td>
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<td><strong>Logo Export</strong></td>
<td>Ability to overlay custom logo onto exported videos</td>
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<td><strong>Image Zoom</strong></td>
<td>Exported video shows only zoomed region</td>
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<td><strong>Frequency Filtering</strong></td>
<td>Bandpass, Bandstop, Lowpass and Highpass Filtering of Time Waveform and video</td>
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<td><strong>Stabilization</strong></td>
<td>Entire frame and region based image stabilization</td>
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<td><strong>Time Waveforms, Spectra, and Orbits</strong></td>
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The Iris MX™ from RDI Technologies™ expands upon its revolutionary Iris M™ product to open up the world of Motion Amplification™ to high speed applications. Like the Iris M, the Iris MX utilizes the millions of pixels in today’s modern cameras to measure deflection, displacement, movement, and vibration not visible to the human eye. The Iris M covers a wide range of faults in machine condition monitoring but with the addition of the Iris MX, we have you covered no matter what the speed of your machine.
1,400 frames per second in HD resolution

Available as an add-on with plug and play compatibility for current Iris M users

For new customers the Iris MX includes all Iris M hardware and software to cover the full frequency range with ease

Visualize the entire process while retaining component level analysis

Near real-time processing enables users to make instant decisions about manufacturing operations

Quickly determine the root cause and communicate it in an easy to understand video

SEE IT. SHOW IT. FIX IT.
“For 15 years I gave vibration analysis reports to clients and am not sure what they have been doing with them all those years. Now, I give them a video and the look on their face is priceless, and actions get taken right away.”

Frederick Robinette, Owner, Machinery Reliability Solutions

“This has proven to be of great assistance in rectifying a long term plant issue. After only a short set up time it confirmed our vibration and phase measurements without physically touching the plant.”

Peter Fanning, Condition Monitoring Team Leader, AGL Loy Yang
“This video amplification technology has limitless applications. RDI has helped MillenniTEK identify motion and vibration issues that have resulted in improved yields and predictive maintenance planning. This is a must see technology that is cutting edge.”

Steve Getley,
President, MillenniTEK LLC

“Our RDI Technologies IRIS M motion camera has quickly become the most used piece of advanced technology in our rotating equipment department. The IRIS M is extremely exciting for us as it is the first genuinely new form of vibration analysis equipment since we stopped recording with audio tape 30 years ago. Finally clients who can’t read a spectrum or waveform truly understand the gravity of their vibration issues.”

Bryant Sutton,
Operations Manager, Southern Services Inc.