



IRIS MTM

Enhancing Vision

The world's first non-contact Motion Amplification® software platform.

THE POWER OF TECHNOLOGY

Iris M, from RDI Technologies™, is the first camera-based metrology device of its kind that allows users to see - in real time - motion that is invisible to the human eye or can be difficult to measure with traditional sensors. Our proprietary Motion Amplification® software lets you quickly measure, visualize, and communicate vibration data with technical and non-technical users. This technology is used for a wide range of applications in research, product, and quality assurance testing.

The Iris M platform is a full-field vibration measurement technology that detects subtle movement <0.01 mils ($0.25 \mu\text{m}$). By turning every pixel in the camera into a sensor, Iris M takes millions of data points in a fraction of a second with no surface preparation or physical connection to your test articles.



The Iris M technology platform delivers real-time video to users, enabling them to make decisions about critical applications such as product designs, noise, vibration, and harshness based on real data. The ability to visualize displacements while retaining component level analysis makes Iris M the perfect tool for screening, fault finding, baseline or commissioning, and pre/post modeling and repairs. Every step of the way, Iris M provides specific information to help filter and troubleshoot dynamic or structural vibrations over a wide frequency range.

Iris M's proprietary Motion Amplification® software produces easy-to-analyze videos of the actual movement across your application, enabling enhanced decision making and communication between technical and non-technical personnel. The videos and data from the Iris M platform are produced within seconds of data collection, saving you time and money while accelerating your time to market.





FEATURES

LIVE MOTION AMPLIFICATION®

Apply amplification before acquiring a recording. Scan assets instantly to see motion in real time.

TIME WAVEFORMS, SPECTRA, AND ORBITS

Unlimited number of regions can be drawn in the video to measure displacement. All measurements are simultaneous.

STABILIZATION

Entire frame and region based image stabilization.

DATA EXPORT

Export waveform, spectra, orbits, and object paths to .csv file.

FREQUENCY FILTERING

Bandpass, bandstop, lowpass, and highpass filtering of time waveform and video.

MOTION MAPS

Show colorized image overlays of individual frequencies or overall motion.

TOP FREQUENCY FILTERING

Automatically determine frequencies of interest and create multiple filtered data sets with a single click.

SHAFT INSPECTION

Visually inspect rotating shafts and measure their displacement while under operation.

TRANSIENT MOTION AMPLIFICATION®

See Motion Amplification® of small motions as an object moves through the scene.

TRANSIENT PATH PLOT

Show the path of an object in the video as well as in the plot.

VIDEO ANNOTATIONS

Add text, shape, annotations, and company logo overlays with export to video.

VIDEO SIDE-BY-SIDE

Side-by-side playback of original and Motion Amplification® video.

SPECIFICATIONS

LENSES

6mm, 12mm, 25mm, 50mm, 100mm.

ACQUISITION SYSTEM

i7 processor, 32GB RAM, 1TB SSD, dual batteries, lightweight, MIL-STD-810G standard drop protection, 3 yr accidental damage protection.

SAMPLE RATE

180 fps in HD, up to 1,300 fps at reduced resolution.

FREQUENCY RANGE

Up to 5,400 CPM @ 180 fps
Maximum: 39,000 CPM at 1,300 fps with reduced resolution.

MINIMUM DISPLACEMENT

<0.01 mils (0.25 μ m) at 3.3 ft (1m) with 50mm lens, 0.005 mils (0.125 μ m) at close focus.

PLAYBACK/EXPORT SPEEDS

4x original framerate to 1 fps.

MOTION AMPLIFICATION® FACTOR

1-500x.

USB3 CABLE LENGTH

9.84 ft (3m).

OPTIONAL ACCESSORY KIT

LED light: 23,000 Lux @ 1 m, Li-ion light battery, light stand, extra vibration pads, computer stand.