IRIS◎MX™

Enhancing Vision

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

THE POWER OF TECHNOLOGY

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. With up to **1400 FPS in HD resolution** you can now amplify and communicate virtually every displacement in the scene. Leveraging a high-speed camera for **frame rates over 10,000 fps**, the Iris MX's most unique capability is the ability to apply Motion Amplification® and show motions up to **5,000 Hz** and produce an infinite amount of absolute measurements within the scene.

- Available as an add-on with plug and play capability for current Iris M users.
- For new customers, the Iris MX is packaged with the Iris M camera, hardware, and software to cover the full frequency range with ease.
- Near real-time processing enables users to make instant decisions about manufacturing operations.

The Iris MX enables the user to see the fault by visualizing the motion of the entire machine, its structure and base, and surrounding environment to determine the root cause. This enables the users to quickly and comprehensively diagnose machinery in a simple and easy-to-understand video. This video can be used to close the communication gap between technical and non-technical resources and empowers them to fix problems. The Iris MX is high-level analysis in its simplest form.

FEATURES

MOTION AMPLIFICATION®

See motion invisible to the naked eye in near real-time view.

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 DISPLACEMENT

Measure the displacement of a rotating shaft 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.*
Lenses listed include M and MX hardware.

AQUISITION SYSTEM

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

SAMPLE RATE

1,400 fps in HD, up to 29,000 fps at reduced resolution.

FREQUENCY RANGE

Up to 42,000 CPM at 180 fps
Maximum: 870,000 CPM at 29,000 fps with reduced resolution.

MINIMUM DISPLACEMENT

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

PLAYBACK/EXPORT SPEEDS

4x original framerate to 1 fps.

MOTION AMPLIFICATION® FACTOR

1-500x.

USB3 TO ETHERNET CABLE

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.