



IRIS CM™

Enhancing Vision

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

THE POWER OF MOTION AMPLIFICATION® WITH THE BENEFITS OF CONTINUOUS MONITORING

RDI's Motion Amplification® platform is a unique, revolutionary technology that detects subtle movement and converts that movement to a level visible with the naked eye. By turning every pixel in the camera into a sensor, Iris CM™ takes millions of measurements in a fraction of a second. And it does this with no physical connection to your machinery or equipment. With Iris CM, you now have the ability to see what is happening on your machines even when you are away.



- Determine the root cause.
- Quantify vibration, amplitude, frequency, and phase for anything visible in the recorded video.
- Test and visualize your assets over periods of time for improved troubleshooting.

Once configured, Iris CM can continuously monitor your asset with live Motion Amplification®, trigger and store recordings, and provide all the data analysis of Motion Amplification® software. Best of all, once you solve the problem with your asset, just move the system to the next asset and start all over. Solve your toughest problems, solve your intermittent problems, solve it with Iris CM.





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.

TRIGGERS

Trigger recordings based on physical or virtual camera-based sensors. Store video pre and post triggers for analysis before and after events.

STORAGE

90 minutes worth of HD video stored per camera. Extract video from anytime in the last 90 minutes.

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.

SPECIFICATIONS

INDUSTRIAL GRADE CAMERAS

(3) USB 3.0, high resolution CMOS sensor, high definition.

FREQUENCY RANGE

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

SAMPLE RATE

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

TRIPODS AND MOUNTS

Professional grade tripods with pistol grip, clamp mounts, magnetic mounts.

SERVER

Intel i9 processor, 2 TB Samsung SSD for persistent storage, 32 GB RAM.

ACQUISITION SYSTEM

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

MOTION AMPLIFICATION® FACTOR

1-500x.

LENSES

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

MINIMUM DISPLACEMENT

<0.01 mils (2.5 µm) at 3.3 ft (1m) with 50mm lens, 0.005 mils (125 µm) at close focus.

USB3 CABLE LENGTH

9.84 ft. (3 m) and 65.61 ft. (20 m) (3 each).

LIGHTING KIT

(2) LED Light 23,000 lux at 1 meter, lithium ion light battery, light stand.