

# IRIS EDGE™

CAMERA-BASED VIBRATION ANALYSIS, SIMPLIFIED.



## SHARPEN YOUR RELIABILITY PROGRAM WITH IRIS EDGE

Iris Edge™ is a camera-based vibration analysis tool that collects large-scale data and seamlessly transmits it to your IoT platform. Iris Edge™ combines POE, a pan-tilt mount, and auto-focus to make deploying cameras for vibration monitoring easier than ever before while delivering all the benefits of Motion Amplification®. With Iris Edge™, users can monitor, trend, alert, diagnose, and troubleshoot an even larger field of view and provide the most flexible, scalable, and easiest deployment method for monitoring your assets. There is no need to contact your assets or even turn them off during installation; simply install a camera and monitor everything it can see.



### WHAT IS MQTT?

MQTT (Message Queuing Telemetry Transport) is a standardized communication protocol that has become one of the predominant standards used on the Internet of Things (IoT) and other applications. MQTT is commonly used throughout the industry and is easily integrated, making it the preferred data transmission and sharing protocol. Iris Edge™ uses MQTT for data transmission, making it easy to deploy and streamlining the integration of Motion Amplification® into your facility's AI/ML programs, SCADA, historian, or data lake through one protocol.

### SIMPLIFIED DEPLOYMENT

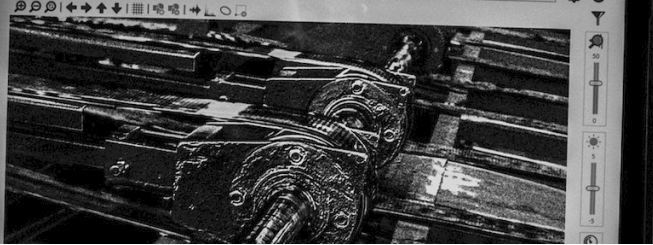
- Deploy your new system quickly using one PoE cable for data and power.
- Make changes quickly with remote access, auto focus, and an optional cellular connection.
- Collect data as frequently as needed with unlimited, contact-less vibration data points.
- Expand your monitoring system to collect more data by adding more Iris Edge™ and Iris CM™ devices over time.

### FREEDOM TO MOVE YOUR DATA

- Improve your workflow and save time by automatically exporting data into your existing systems with MQTT publishing.
- Easily send your data AI/ML programs, SCADA systems, historian, or data lake through one protocol.
- View your data in a dashboard for monitoring and trending.

### MOTION AMPLIFICATION®

- Visualize machinery and structural movements.
- Accurately measure displacement data that's generated by millions of camera pixels.
- Solve underlying problems.



## SPECIFICATIONS

### PAN/TILT

Tilt: +40 ° and -40 ° of movement from center  
 Pan: +90 ° and -90 ° of movement from center  
 Required Clearance: 14" L x 14" W x 12" H  
 Power supplied with system: Yes

### PAN/TILT ASSEMBLY POE ADAPTER

PoE Standard: IEEE® 802.3bt, PoE ++ Type 3  
 Splitter Minimum Output Power: 12V, 40W, Integrated

### PAN/TILT ASSEMBLY AC ADAPTER

Power Input: 100-240V, 50-60Hz, 1A max @ 100V  
 Power Output: 12V, 60W

### IoT DATA TRANSMISSION

Data transmitted over MQTT

### FREQUENCY RANGE

0 CPM (0 Hz) at 5,100 CPM (85 Hz) at 170 fps  
 Maximum: 39,000 CPM (650 Hz) at 1,300 fps with reduced resolution

### INDUSTRIAL GRADE CAMERA

High resolution CMOS sensor, high definition with auto-focus,  
 Environmental Rating: IP51

### CAMERA POE ADAPTER

PoE Standard: IEEE® 802.3bt, PoE ++ Type 4  
 Splitter Minimum Output Power: 19V, 60W, Integrated

### CAMERA AC ADAPTER

Power Input: 100-240V, 50-60 Hz, 2A max @ 100V  
 Power Output: 19V, 120W

### SAMPLE RATE

170 fps in high definitions, up to 1,300 fps at reduced resolution.

### MOTION AMPLIFICATION FACTOR®

1-500X



## SOFTWARE FEATURES

### MOTION AMPLIFICATION® SOFTWARE FEATURES

- **Time, Waveforms, Spectra, and Orbits:** Unlimited number of regions can be drawn in the video to measure displacement. All measurements are simultaneous.
- **Transient Motion Amplification®:** See Motion Amplification® of small motions as an object moves through the scene.
- **Data Export:** Export waveform, spectra, orbits, and object paths to .csv file. Data can be exported via MQTT protocol for use in other systems.
- **Stabilization:** Entire frame and region-based image stabilization
- **Transient Plot Path:** Show the path of an object in the video as well as in the plot.
- **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.

### IRIS EDGE™ SOFTWARE FEATURES

- **Status View:** Review data in with dashboards
- **Monitoring:** Pan/Tilt
- **ROI Triggers:**
  - Waveform Pk-Pk
  - Spectrum Digital Overall
  - Spectrum Frequency Band
- **Optical Triggers:** Virtual camera-based sensors
- **Notifications:** Email notifications from triggers with Motion Amplification® videos viewable from the cloud.