

# ACCELEROMETER CALIBRATION SYSTEM

## Resonance Test Option



The Accelerometer Calibration Workstation with Model 9155C-550 Resonance Test option allows the user to measure a sensor's mounted resonant frequency using the Model K394A30/A31 state-of-the-art precision air-bearing shaker. Unlike other air-bearing shakers, the resonance frequency of the internal reference of the K394A30/A31 shaker is  $> 70$  kHz giving it a TRUE useable range for resonant searches up to 50 kHz! And because the search is done with the shaker, no remounting of the sensor is required, making the resonance search take only seconds after the calibration is performed.

By measuring the mounted resonant frequency of a sensor, tiny cracks and other flaws in the sensor can be detected well before the sensor actually fails.

The Accelerometer Calibration Workstation Model 9155C features back-to-back comparison calibration of ICP® (IEPE), and charge mode accelerometers for both sensitivity and phase according to ISO 16063-21. Printed certificates fulfill the requirements set forth by ISO 17025 for calibration certificates..

### **BENEFITS:**

- Integrates industry's best air-bearing shaker (Models K394A30 & K394A31) for accurate, automated resonance search testing up to 50 kHz
- Provides early warning detection technique for damaged sensors
- Allows user to select frequency resolution for optimal sweep measurements
- Easy-to-use software GUI automates sweep measurement and interface with 9155C calibration software and database
- Sweep runs directly on the K394A30 or K394A31 air-bearing shaker systems, eliminating the need to remount the sensor under test, streamlining sensor calibration throughput
- Provides rapid, efficient measurements in just seconds



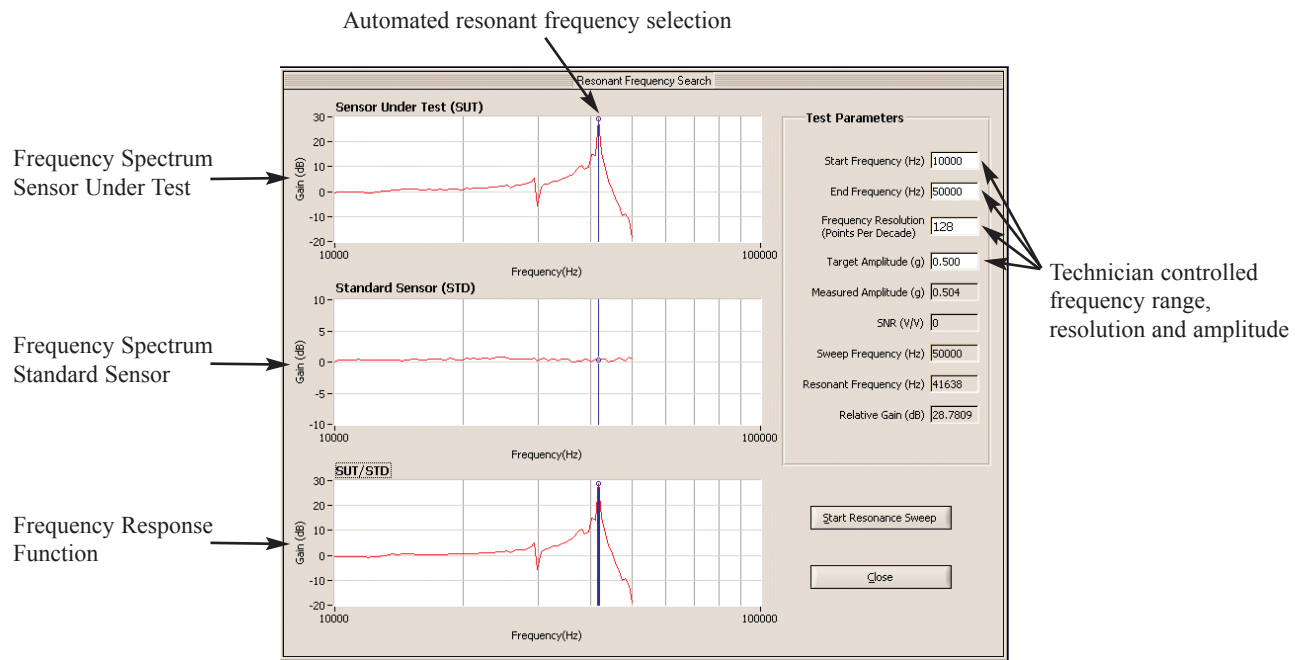


# MODEL 9155C-550

The 9155C-550 Resonance Test option seamlessly integrates with the 9155C Accelerometer Calibration Workstation software. With just a few mouse clicks, the calibration technician can go from frequency response calibration to resonance search. The Model 9155C-550 Resonance Test option requires either the Model 9155C-830 K394A30 Air-Bearing Shaker or Model 9155C-831 K394A31 Air-Bearing Shaker.

Frequency Range	5- 50 kHz
Frequency Resolution	12.5, 25 or 50 Hz
Test Technique	Back-to-back sweep
Reference	
Mounted Resonance <sup>1</sup>	> 70 kHz
Software Compatability	9155C v.4.0.0 or later
Hardware Compatability	NI PCI-4461

<sup>1</sup> Mounted resonance of the internal reference sensor in the K394A30/A31



## OTHER OPTIONS AVAILABLE

9155C-100	19" Rack Integration. Approx. 29.5"H x 21.75"W x 23"D [75cm x 55cm x 58cm]. Integrates components in 19" rack. Substitute rack mount PC for desktop PC.
9155C-400	TEDS Sensor Support. Provides for automatic update of TEDS sensors. Requires 9155C-440 option.
9155C-440	Modular Signal Conditioning. Allows for computer control & automated switching between ICP® and charge mode sensors.
9155C-501	Linearity. Provides for multipoint sensor linearity checks.
9155C-510	Shunt calibration. Provides for calibration of strain sensors.
9155C-525	Shock calibration. Provides for verification of shock accelerometers from 20g to 10,000g.
9155C-700	Low Frequency (0.5 Hz - 10 Hz) magnitude and phase. Includes low frequency shaker and force reference sensor.
9155C-830	K394A30 Air-Bearing Shaker System Upgrade. Adds precision air-bearing shaker 2 Hz - 15 kHz.
9155C-831	K394A31 Air-Bearing Shaker System Upgrade. Adds precision high-frequency air-bearing shaker 2 Hz - 20 kHz.

**The Modal Shop** 3149 E Kemper Road, Cincinnati, OH 45241 USA  
**Toll free 800-860-4867 / Phone 513-351-9919 / Fax 513-458-2172**  
**E-mail info@modalshop.com Web site www.modalshop.com**

© 2006 PCB Group, Inc. In the interest of constant product improvement, specifications are subject to change without notice.  
 © PCB and ICP are registered trademarks of PCB Group, Inc.